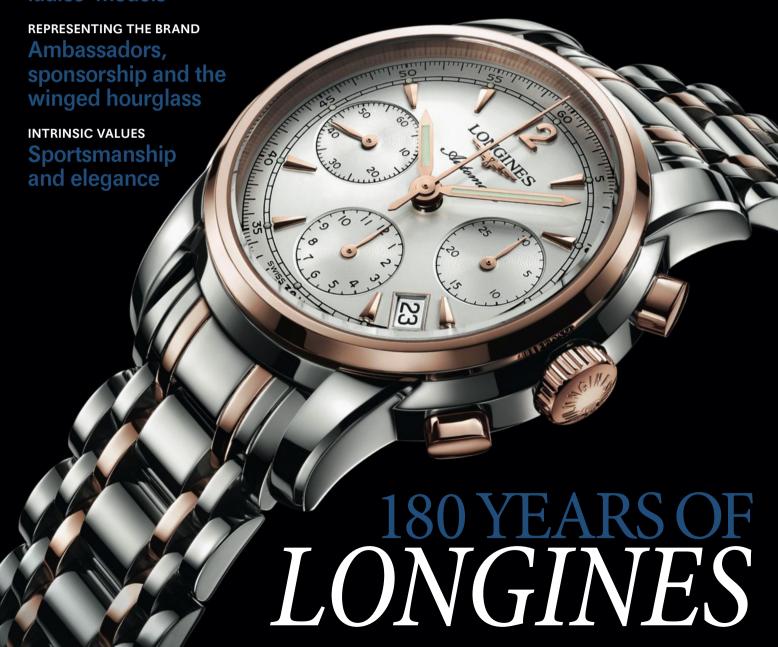
LONGINES SPECIAL

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THE MAGAZINE OF FINE WATCHES

PAST AND PRESENT
Pilots' watches,
chronographs and
ladies' models









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No doubt about it – Longines is one of the world's most successful watch brands. The brand has celebrated constant growth since 2003. According to our estimates the company now produces about one million watches per year and its sales volume of around one billion Swiss francs puts it among the top five in the industry. A good portion of these numbers are attributed to the high demand from Asian markets but growth rates in Europe and America are also substantial.

Longines undoubtedly is one of the major traditional manufacturers that have made a decisive mark on the Swiss watch industry. Longines (among others) was a leader in the creation of chronographs and the timing of sporting events. The company won chronometer competitions and equipped early aviators with cockpit instruments and special wristwatches. And early on, at the beginning of the 20th century, Longines began offering wristwatches alongside pocket watches and accessorized fashionable women with fine models of their own. The company has also always stood for quality of the first class. Ernest Francillon, leader of the manufacture during the second half of the 19th century, had a distinctive mark engraved on his watch movements – one that wrote marketing history. The winged hourglass was submitted to the Swiss patent office in 1889 and is the world's oldest logo in continuous use.

The rise of inexpensive Japanese quartz watches in the 1970s led to the downfall of many traditional watch manufacturers in Switzerland. Longines was not alone in fighting for survival. Fortunately the brand became part of Swatch Group in the early 1980s (then SMH) and its leader, Nicolas G. Hayek, determined the path that guaranteed the company's successful future. Longines no longer produced movements in-house and instead relied on the centralized production by ETA, which allowed the company to concentrate on product development and marketing. It was especially important to ensure the company presented a unified image worldwide. Longines was set to regain its position as the embodiment of an elegant watch, and the strategy proved to be a complete success. Take, for example, the "La Grande Classique de Longines" collection. Since its introduction in 1992 it has lost none of its currency and has sold

more than 1 million pieces so far – all without the benefit of advertising, as Longines president Walter von Känel likes to mention.

Longines offers a refined combination of elegance and top performance, exemplified in the watches in its various collections as well as the different types of sports it supports, such as horseback riding, tennis (with the French Open) and rhythmic gymnastics. Equestrian sports are of special interest to Nayla Hayek, chairwoman of the board of directors of The Swatch Group.

Longines continues to write its own successful history year after year thanks to its unique and long-lasting appeal. The brand has always trusted its intrinsic values – building beautiful and elegant watches for everyday wear. Emphasis is placed on precision and reliability as well as providing good value. In contrast to many other watch manufacturers the company resisted the temptation of shifting to a much higher price bracket. Most Longines watches are priced between 1,000 and 4,000 Swiss francs and the brand remains the market leader in this price segment. But even though quartz watches continue to play an important role, especially for ladies' models, the percentage of mechanical watches is growing. 60 percent of current models contain a mechanical movement. In addition to the mass-produced calibers supplied by its affiliate ETA other more exclusive movements are being offered. On the occasion of its 175th birthday in 2007 Longines created two special movements for its "Retrograde" model. This was followed by a column-wheel chronograph whose development was fully financed by Longines. For its 180th birthday it is introducing a singlepusher chronograph and a Retrograde model that includes a day/night and a moon-phase display - both with new movements exclusively manufactured for Longines.

The following 137 pages explain what made Longines strong in the past and how the brand is preparing itself today for the future.

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LONGINES'S NEW CLOUT

BY JOE THOMPSON





The Longines Column-

Wheel Chronograph

contains its exclusive

Caliber L688.2 (left).

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n September 29, 2011, Longines Watch Co. held an event in Shanghai, China, to launch a new collection of watches. The Longines Saint-Imier Collection, named after the Jura Mountain village where Longines was born in 1832 and where it remains to this day, features classically styled watches for men and women in steel, steeland-gold, or rose-gold cases. The star of the series is a column-wheel chronograph whose retro good looks were inspired by a Longines watch from 1945. Inside the chronograph's tiered case is a movement that is a Longines exclusive, Caliber L688.

Adding panache to the occasion was the Oscar-winning British actress Kate Winslet, whom Longines signed as an ambassador in 2010. The Longines Saint-Imier Collection launch event was a sort of warm-up for the festivities the company has planned for its 180th anniversary in 2012. In fact, Longines at 180 has much to celebrate. Recently the brand, which specializes mostly in steel dress watches priced between 1,000 and 4,000 Swiss francs, has been on a roll. Consider:

- Longines has had eight consecutive years of sales growth, unimpeded even by the worst global recession since the Great Depression.
- Longines today ranks among the top five Swiss watch brands in total watch revenue, according to WatchTime estimates. (There is no official data on company rank-
- Longines is the world's top watch brand in the 1,000-4,000 Swiss francs price category.
- Of the 18 watch brands in the Swatch Group, the world's largest watch company, Longines ranks among the top three in total sales.

It is safe to say that no one enjoyed the Shanghai gathering more than its host, the firm's CEO, Walter von Känel. "Mr. Longines," as he is known, joined the company in 1969 and has been president since 1988. In Shanghai, a beaming von Känel, who turned 71 in September 2012, posed with the glamorous Winslet and merrily greeted guests. Indeed, the Shanghai event served as a tableau highlighting many of the elements behind Longines's resurgence: its clout in China, where it is the second strongest watch brand; its leadership in the dress watch category; and its recent push into mechanical timepieces, notably with ETA movements made just for Longines. Winslet, a bonafide A-list celebrity, is herself a symbol of new strength for a brand that previously relied on regional ambassadors.

Recently *WatchTime* met with von Känel in his spacious, computer-free office at Longines's factory and headquarters in Saint-Imier to discuss Longines at 180. "People don't realize the strength of this brand," he says. "This is not a small company. In the Swiss watch industry, we see once in a while statistics from banks and elsewhere – nobody thinks we are so big." But they are. Swiss sources estimate that in 2011 Longines entered the extremely exclusive club of Swiss watch brands that sell 1 million watches per year for almost a billion Swiss francs. (Longines, in keeping with Swatch Group policy, does not disclose sales figures.)

Longines's growth, von Känel says, is the result of "consistency, continuity, and staying in our league," that is, the mid-price range. And, adds the man who is a retired colonel in the Swiss Army, by "being stubborn like infantry." Stubbornness is certainly a factor in Longines's recent rise. Policies put in place long ago are now paying off.

The policies were the brainchild of the late Nicolas G. Hayek, Sr., who gained international fame as the man who rescued the Swiss watch industry during the quartz crisis of the early 1980s. Hayek's solution to the Swiss industry's woes was to restructure the industry and create what is now the world's largest watch company, the Swatch Group. Hayek was first chairman and CEO of the group. His radical plan was to centralize production of quartz and mechanical movements within the group under the movement-making company, ETA, and to shift the focus of group brands from manufacturing to product development and marketing. Moreover, Hayek forced Longines to become a global brand. He put an end to the lucrative licensing deals that resulted in wildly different products designed to suit local market tastes. Hayek insisted that Longines (and every Swatch Group brand) have a clear product identity and a clear marketing message on global markets. The identity should be in keeping with the brand's history and heritage. That strategy led directly to the "Elegance is an attitude" campaign developed by von Känel and his team in the 1990s.

Hayek also established Swatch Group subsidiaries in major watch markets around the globe, giving Longines and other Swatch Group brands a strong foothold and presence in the world's top markets.

Those marketing and distribution policies have been reinforced and strengthened by Nick Hayek, Jr., who became CEO of the Swatch Group in 2003. Longines continues to benefit from the attention of the Swatch Group's top management, not only Hayek, Jr., but Swatch Group Chairperson Nayla Hayek, who succeeded her father in the post in 2010. A member of the World Arabian Horse



Top: Longines CEO Walter von Känel in the '90s, with the late Swatch Group Chairman Nicolas G. Hayek, Sr.

Middle: The Swatch Group's chairperson, Nayla Hayek

Bottom: von Känel with Swatch Group CEO Nick Hayek, Jr.





Organization and a former international Arabian horse judge, she has used her extensive contacts in the field to Longines's advantage. "I give thanks to our chairwoman, Madame Hayek, who heavily reinforced our presence in equestrian activities, not only jumping but racing," von Känel says.

'NON-STOP SALES GROWTH'

You see the biggest payoff from the Hayek policies today in China. "Since 2003 we have had non-stop sales growth," von Känel says, and China is the reason. Mainland China is Longines's top market by far. Longines is the second-best selling Swiss watch in mainland China, according to a survey by a Chinese magazine. (Omega was number one in the survey, Rolex number three.) Longines's strong position there gives it clout throughout the region and around the world. "We cannot talk about China alone. We have to talk about Greater China," von Känel says, which he defines as mainland China, Hong Kong, Taiwan, Duty Free Shoppers, as well as Chinese tourists and overseas workers. "Chinese

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One reason for Longines's strength in China is its 140-YEAR HISTORY there.

tourists have to bring gifts back. And a nice gift to put in their pocket is a watch." (Recent data gives an idea of the enormous buying power of Chinese tourists. Chinese tourism officials estimate that Chinese took 70 million overseas trips in 2011 and spent a total of 69 billion dollars, an increase of 25 percent over 2010.) Von Känel says that Chinese consumers around the globe account for a significant portion of Longines sales.

Von Känel acknowledges that Longines's power surge has relied greatly on Chinese consumers. How does he feel about riding the dragon? "As the grandson of farmers," he says, "I don't like to put all my eggs in one basket. We have to accept that there is some risk. But I have a good feeling about China for the next couple of years. I don't think there will be a slowdown." Moreover, he says, "The United States is getting bigger and

bigger for us and Europe is enjoying very positive additional sales."

One reason for Longines's strength in China is its long history there. Chinese consumers know and respect the Longines brand. Longines has superb archives dating back to 1867, and the record shows that watches were shipped to China even then. In 2009, Longines underlined the point by sponsoring a contest to find the oldest watch in China. (It has held similar contests in Russia and Japan.) Over the years, Longines's fortunes in China waxed and waned, depending on the political situation in the country. Von Känel himself was instrumental in opening modern China. His first trip to Beijing was in 1971, where he dealt with a government agency called Beijing Watch & Spectacles. "I got my first order in 1974," he remembers. "It was not a big order. But I was very proud."



Top: China is by far Longines's most important market.

Bottom: A Chinese advertisement for Longines pocket watches from the 1920s



Another reason for Longines's strength in mainland China, von Känel says, is that its watches are not subject to the steep luxury tax that exists on higher priced watches. (The tax can make luxury watches in China up to 50 percent more expensive than in Europe or the United States.)

But the biggest reason that Longines is hot in China is its styling. In a market that famously favors classic dress watches over sporty looks, Longines is a big hit.

CLASSIC LINES

In 1996, von Känel and his team made a key strategic decision. "We said we want to stay in classic watches," he explains. Since then, through good times and bad, Longines has made elegance the hallmark of its product

development and marketing plans. Even when global design trends favored avant-garde experimentation, jumbo sports looks or bulky bling things, Longines maintained an elegant approach in keeping with its famous advertising slogan ("Elegance is an attitude.") Ironically the upheavals caused by the Great Recession of 2009 helped Longines. The hard times brought a new, more sensible aesthetic in watch styling. The pendulum swung dramatically toward clean, understated, elegant looks. The market returned to Longines.

Longines today has four product families: Elegance, Watchmaking Tradition, Sport and Heritage. The first and foremost family is Elegance. Within the Elegance family, there are seven different collections in two categories, Classic Elegance or Contem-



Mechanical watches now account for more than 60 PERCENT of Longines's watch production.





porary Elegance. "The king of our classic watches," von Känel says, "is definitely La Grande Classique de Longines," the leader of the Classic Elegance group. The king has reigned for two decades. It was launched in 1992 as a line of ultra-thin, round, men's and ladies' steel quartz watches with clean lines and simple dials featuring Roman numerals or thin hour markers. Two years later, with no advertising behind it, La Grande Classique de Longines became Longines's best-selling collection, a position it held until 2007. Its popularity has not waned. Today it is the most copied Longines watch.

Also in the Classic Elegance category are what von Känel calls "the bread-and-butter models" that are very popular in China, like Presence and Flagship. Flagship is the star right now. Why? Because the design matches Chinese tastes for simplicity. And the size matches Chinese wrists. You have to give the Chinese the size they want." For years, Longines has offered models in a range of sizes in all its markets. La Grande Classique de Longines, for example, has cases in five different diameters (24, 29, 33, 35 and 37 mm). The Longines Master Collection of round mechanical watches comes in nine different case sizes.

Complementing the Classical series are the two Contemporary Elegance collections of ladies' watches, mostly quartz, the rectangular Longines DolceVita and the round Longines PrimaLuna. Longines DolceVita was born in 1997 as a rectangular alternative to La Grande Classique. It was an instant hit. For nine consecutive years a ladies' bracelet Longines DolceVita watch was the brand's best-selling single model. Von Känel boasts that since its debut, Longines DolceVita has sold more than 1 million pieces.

How important is the elegance positioning to Longines? The seven collections in the Elegance family account for nearly 50 percent of Longines's total sales.



Certainly, Longines's decidedly classic styling is a major factor in the brand's popularity with Chinese consumers. But the appeal spreads far beyond China. Longines sales in 2011 increased by a double-digit percentage over 2010, von Känel says. Sales were up in every market.

Without question, the watch market's shift to more elegant styling is a factor in Longines's rising fortunes. But another, less noted factor is a corresponding move that Longines made to match market tastes. Over the past five years, Longines has dramatically increased its production of mechanical watches, particularly in the 2,500 to 4,000 Swiss francs price range. In 2007, mechanical watches accounted for less than 40 percent of its production. In 2011, they amounted to more than 60 percent of its output.

The build-up has come in the firm's Watchmaking Tradition family of (almost) all mechanical watches, all classically styled. It started in 2004 with the tonneaushaped Longines evidenza collection, priced at 2,850 Swiss francs. "Longines evidenza was a breakthrough for us over 2,000 Swiss francs," von Känel says. But he knew that for the China and Russia markets, he needed a round watch to supplement the tonneau shape. The solution was the Longines Master Collection of automatic watches with a variety of features, and case sizes ranging from 25.5 mm to 47.5 mm diameters. The series was a knockout. It toppled La Grande Classique from its perch as Longines's best-selling collection. The hero products

Assembling watches at Longines in Saint-Imier



were a Moonphase Chronograph (3,000 Swiss francs), which sells well in China even in the 40-mm version; various steel-and-gold models that Longines promoted heavily; and the highly touted Longines Master Collection Retrograde of 2007, powered by the first Longines proprietary movement in decades, Caliber L697.2.

Longines expects that the new all-mechanical Longines Saint-Imier Collection, which joins Master and evidenza in the Watchmaking Tradition family, will propel mechanical watch sales.

Longines's third product family, the all-mechanical Heritage, consists of the brand's legendary historical watches like the Lindbergh Hour Angle Watch and the Longines Weems Second-Setting Watch, as well as the new Longines Column-Wheel Chronograph containing Longines's second proprietary movement, Caliber L688.2.

Finally, there is the Sport family consisting of the HydroConquest aluminum bezel watch and the Conquest collection.

Longines's balanced product lineup (53 percent of sales are men's models, 47 percent women's) has proven to be a winning formula. "We are the king between 1,000 and 4,000 Swiss francs," von Känel says. "That is our duty. That is our mission within the Swatch Group. We are number one in this price segment. I think we satisfy the group."

One sure sign that the group is satisfied is that for the first time since the creation of the Swatch Group in 1984, the group has taken the unusual step of providing Longines with its own exclusive supply of original movements.

CALIBERS OF ITS OWN

For most of Longines's 180 years, the company - which has produced more than 38 million watches since its founding - made its own movements. In-house movement manufacturing ceased in 1984 during Switzerland's quartz crisis. Switzerland's urgent need to master quartz technology led to the creation of the Swatch Group. Under the reorganization plan devised by the





Elegant look: Indian actress and Longines ambassador Aishwarya Rai-Bachchan

By the end of 2014, five mechanical movements **EXCLUSIVE TO LONGINES** will be in production.

late Swatch Group founder and chairman Nicolas G. Hayek, Sr., manufacturing was transferred from the individual brands to ETA S.A. in Grenchen, Switzerland, which became the production center for the entire group. Von Känel, then the number two man at Longines, opposed the move. "I fought it," he says. He acknowledges he was wrong. "We are what we are today thanks to that decision."

Longines still does not make its own movements. More and more, however, in a significant shift, ETA is producing mechanical movements for Longines that are not available to any other brand within or outside of the Swatch Group. By the end of 2014, five ETA-made movements exclusive to Longines will be in production, with a sixth in the pipeline. The development, which requires heavy investment from Longines, is yet another sign of its new clout. Says von Känel with a smile, "We are beginning to be a major factor in this business."

The policy shift began a few years ago when Longines wanted a watch with four retrograde hands for its Watchmaking Tradition family. Nothing like that was available from ETA. So Longines applied for a special movement through the Swatch Group's standard procedures. To von Känel's delight, the application was approved. "It was an important decision," he says. "It meant the door was open within the group to have exclusive Longines movements." When the door opened, von Känel and company charged through, financing the development of the Calibers L697 and L698, which power the Longines Master Collection Retrograde

power reserve and moonphase watches respectively. The base movements were ETA's A07.L11 and L21. The retrograde watch was introduced in 2007.

Soon afterwards, the Swatch Group decided that ETA's first ever column-wheel chronograph movement should be a Longines exclusive, in recognition of the column wheel's place in Longines's history. ("We started making column-wheel chronograph movements in 1878," von Känel says.) The Longines Column-Wheel Chronograph, containing Caliber L688.2 (ETA A08.231) was presented in 2009.

Longines's third exclusive movement, Caliber L707 (A07.L31), arrived in the Longines Master Collection Retrograde Moon Phases watch of 2011. Longines unveiled the fourth exclusive movement in its 180th anniversary year in the Longines Column-Wheel Single Push-Piece Chronograph 180th Anniversary, with all the functions controlled by the crown.

So far, Longines's exclusive movements have been restricted to the top tier of Longines' mechanical watches. Says von Känel, "Retrograde and column wheel are prestige and pleasure. They are not volume." But that will change. The latest Longines-ETA collaboration on exclusive mechanical movements involves movements for Longines's high-volume mechanical models. Today, Longines is ETA's top customer for the ETA 2000, a three-hand ladies' automatic movement with calendar that Longines uses, under the designation L595, in its ladies' mechanical watches. Longines is also a heavy user of the ETA 2892 (L619), a men's version of the threehand automatic with calendar. Longines will soon unveil new ETA base movements, one for ladies' watches, the other for gents, that will be exclusive to the firm and, over time, replace the two standard ETA movements that Longines uses for the bulk of its business. The ladies' movement, which does not yet have a Longines caliber designation, could come as early as 2013. The men's movement is expected one year later. The shift gives Longines significant advantages. One is that it will secure its supply of ETA movements since it will be the sole user of the base movements. Another is that, since Longines is financing the development of the movement, it can be sure that the movement is state of the art.

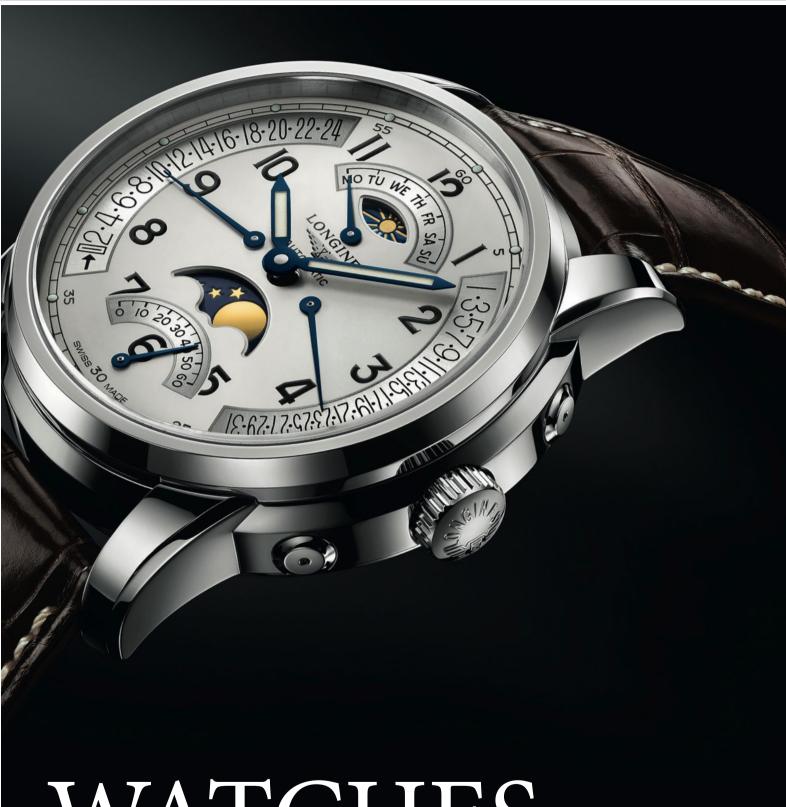
"We will have a more up-to-date and even more reliable movement, according to today's technology," von Känel says. "Because even in mechanical technology a few things have changed. And we will have a very competitive price. So it means that, while always using an ETA movement, we will have our own exclusive baby."

To celebrate its 180th anniversary this year, Longines is presenting two completely **NEW COLLECTIONS**: the special edition 180th Anniversary models and the new Longines Saint-Imier Collection. Models with exclusive ETA movements that were specially created for Longines show unique mechanical refinements:

a single-pusher chronograph with an elegant column-wheel as one of the 180th Anniversary models. And as part of The Longines Saint-Imier Collection a special prestige model with four retrograde displays and a column-wheel chronograph. Other classically timeless watches included in this collection are available with a chronograph function, and ladies' watches are offered with mother-of-pearl dials and diamonds.

BYJENS KOCH

MECHANICAL



WATCHES FOR A SPECIAL CELEBRATION



TRADITION WITH A SINGLE PUSHER

Longines is introducing its anniversary models in honor of its 180 years of operation. Its flagship model is the numbered and limited rose gold Longines Column-Wheel Single Push-Piece Chronograph 180th Anniversary Limited Edition – a fitting tribute to earlier chronographs built by the company beginning in 1878. It is based on an actual Longines watch from 1913, and the dial design and pivoting wire lugs recall its historical predecessor. Like this earlier model, the new Anniversary Chronograph has a pusher integrated in the crown for the start, stop and reset chronograph functions. The automatic Caliber L788, developed by ETA exclusively for Longines, like the earlier Cal. 13.33Z (found in the 1913 predecessor), has an elegant column-wheel construction and is similarly sized at 131/4 lignes. However, at 28,880 vph and with a power reserve of 54 hours, the caliber boasts the solid performance of a modern movement. 27 jewels reduce friction within the movement. The movement is visible through the sapphire caseback. Only 180 pieces were produced with a 40-mm rosegold case and a brown alligator strap. There is also a steel variation with Roman numerals and a version with fixed lugs that is available in rose gold and steel. These versions are not limited.



Also equipped with the exclusive Cal. L788: the steel chronograph with Roman numerals



TRIBUTE TO SAINT-IMIER

There is a special bond linking Longines with the town of Saint-Imier in Switzerland's Jura region. The brand has remained at the same location since its founding in 1832. For this reason Longines has dedicated a special collection to its hometown on the occasion of its 180th anniversary. The new Longines Saint-Imier Collection contains only mechanical watches. A model from 1945 served as an inspiration for the characteristic case shape with its distinctive lugs and sleek lines. Three hand watches are offered in four different sizes - 26, 30, 38.5 and 41 mm - to ensure that everyone can find a perfect fit. Cases are available in stainless steel, gold, or a combination of stainless steel and rose gold. The two smaller models contain the automatic ETA movement 2000 while the automatic ETA movement 2892 is placed in the two larger models. The

chronograph is available in diameters of 39 or 41 mm and is powered by the caliber L688 developed exclusively for Longines by ETA. A sapphire caseback provides a clear view of the column wheel in the movement. The ladies' model is also offered with a diamond-accented case and white mother-of-pearl dial with diamond markers.



The Longines Saint-**Imier Collection** Chronograph in a 41-mm steel case has an exclusive columnwheel movement.



Column-wheel chronograph in The Longines Saint-Imier Collection in a 39-mm rose-gold case and black alligator strap



An elegant ladies' model in a 26-mm steel and rose-gold case, decorated with 60 diamonds





RETRO, TIMES FOUR

An exceptional model in The Longines Saint-Imier Collection is the Longines Retrograde Moon Phases with four retrograde displays. The day of the week is shown at 12 o'clock, the date on the right side of the dial, the seconds at the bottom and the second time zone to the left in a 24-hour format. There is also a day/night display at the top of the dial for the central time and a moon-phase indication at the bottom. Despite the high concentration of information, it is presented in a balanced, symmetrical and easy-to-read arrangement, with some scales placed on the outer edge beyond the hour markers. From a technical point of view, retrograde displays are seen as complications, so the technical refinements required to show this many are impressive. The multi-function watch is powered by the automatic movement L707, which was developed for Longines by ETA and is visible through the sapphire caseback. Recessed correction pushers for the different functions are provided in the 44-mm steel case. The model is available with a black or silvered dial and an alligator strap.

A balanced dial arrangement provides wide-ranging information: The Longines Saint-Imier Collection Retrograde Moon Phases



Developed by ETA exclusively for Longines: the 16 1/2lignes automatic movement L707 with four retrograde displays



Longines has been involved in sports timing since the last quarter of the 19th century. The company still remains firmly involved in a WIDE RANGE OF DIFFERENT **SPORTS** – and provides additional support in its active role as sponsor.

BY ALEXANDER KRUPP



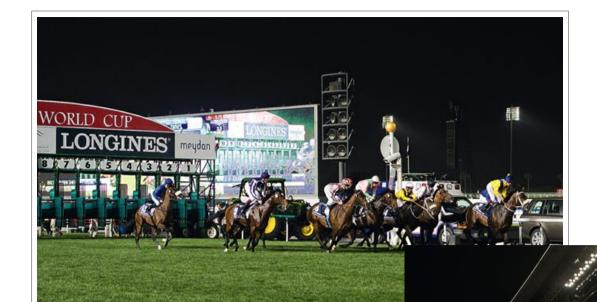
HORSES, CLAY AND BALANCE BEAM





ongines is a true pioneer in the realm of timekeeping. The company's first chronograph caliber appeared as early as 1878, and the first chronograph for the wrist was launched in 1913. Both of these early milestones set Longines apart from other brands and established the company as a front-runner in the development of movements and watches. The functionality of their timekeeping instruments gave rise to a significant and long-lasting involvement in timing sporting events, and later came to include sponsoring activities as well.

Today, sports have returned to their earlier place of prominence at Longines. Even though most watch companies are comfortable in specializing in one or two disciplines, Longines actively participates in eight different sports. Events are timed, athletes are provided with financial support, and programs are developed to promote talented youth. The following pages will show that Longines and sports truly belong together.



Passion for horse racing: Longines was the official timekeeper of the 2012 Dubai World Cup.

HORSE RACING

Horse racing is by far the most important sporting activity associated with Longines and is also one of the oldest. The company has been involved in this sport since 1881 and has entered into numerous partnerships during this time. Among its various activities, Longines is the official time-keeper and title partner of the Prix de Diane Longines at France's Chantilly racecourse where each year the most talented three-year-old fillies compete against one another.

The company is present at many other famous European events such as England's Royal Ascot races, the Grand Prix Longines Lydia Tesio in Rome, and the important Longines Grosser Preis von Baden-Baden race in Germany. But it is also Southeast Asia and the Middle East that plays a fundamental role in equestrian sport sponsoring. The watch

brand is involved in the Longines Singapore Gold Cup, the Longines Hong Kong International Races, the Emir's Trophy in Qatar and the Dubai World Cup (see photos) – by far the richest horse racing event in the world. Of the \$10 million prize money, around \$6 million go to the winner alone.

Longines's activities in equestrian sports are clearly concentrated in Europe and Asia but do not end there. Additional partnerships across the oceans give the company the opportunity to extend its reach throughout the world. The Melbourne Cup Carnival in Australia takes place with the company's support as well as the Kentucky Derby in the USA and the Gran Premio Longines in Mexico. Longines is the watch brand with the most comprehensive presence on horse race courses throughout the world.

MILESTONES IN TIMEKEEPING



Early link to sports: One of the first Longines chronographs with caliber 20H bears an engraving of a horse and jockey on the case back.

SHOW JUMPING

The long-time involvement of Longines in equestrian sports is not limited to racing events, but extends also to show jumping. As early as 1926, the company was the timekeeper at the International Horse Show in Geneva.

Today, around the globe, only few riding tournaments can be found without the presence of the watch brand. Longines is the official timekeeper at CSIO events (Concours de Saut International Officiel, or official international show jumping) in many different countries and is named as the title sponsor at several events.

The most important tournaments for Longines include the Dubai Show Jumping Championship, the Emirates Longines Show Jumping League, the President's Cup presented by Longines, the Longines Equestrian Beijing Masters, most of the events of the Nations Cup, and several events along the Global Champions Tour. The company is also the title sponsor of the Longines Hong Kong Masters - the only five-star riding event anywhere in Asia.

Longines of course appears at these competitions in its technical role, but is also represented by an official ambassador. The Swiss professional show jumper Jane Richard is one of the many Ambassadors of Elegance that personally link the name of Longines with sports, art and film.

At the CSIO events, the company also awards the Longines Press Award for Elegance to athletes to honor extraordinary aesthetic execution of their sport.



Mission on horseback: Jane Richard, Longines Ambassador of Elegance, during the CSIO Switzerland 2010



Public appearance: Even as early as 1896 Longines chronographs were used for timing international sporting events

ENDURANCE RIDING

While horse racing and jumping events are well known all over the world and most people have a good idea of what these sports are about, endurance riding is more of a regional specialty. This discipline is very popular in Middle Eastern countries – probably for the reason that Arabian horses are considered to be best suited for long-distance riding. There are day-long races with hugely variable distances as well as the more unusual longer races that extend over several days. Both types require riders to keep up a winning pace while finding their way over a changing landscape and still managing to bring a sound and healthy horse over the finish line. The condition of each horse is verified by a veterinarian's exam after completion of the race (and before the winner is named).

The addition of two recent partnerships in endurance riding adds yet another facet to Longines's deep involvement in equestrian sports: The company is title sponsor of the Longines FEI World Endurance Championships and also the primary sponsor and official timekeeper of the HH Sheikh Mohammed bin Rashid Al Maktoum Endurance Cup in Dubai. Here, more than 100 riders from around 20 countries have met since 2008 to run the 160km-long cross-country race. The event is named for the Prime Minister of Dubai and Vice-President of the United Arab Emirates, whose son participates in the race.

Western audiences find the long-distance race particularly fascinating because of the different emphasis placed on the best allocation of power and speed over the duration of a lengthy race, rather than on brief top performances. Along the way through the desert the competitors are surrounded by vehicles to keep a constant supply of water at the ready. Water bottles are handed over repeatedly to the riders who empty them over the necks of their horses to keep them cool during the race.

The first rider to reach the finish line and can also present a sound and healthy horse at the end of this exhausting race receives a gold trophy cup and a Longines watch.



HH Sheikh Mohammed bin Rashid Al Maktoum Endurance Cup 2012: Longines donated the official watch for this prestigious event in Dubai, The Longines Column-Wheel Chronograph in gold.

MILESTONES IN TIMEKEEPING

Perfectly legible: This chronograph from 1897 has on its case back a large-format tachymeter track to determine average speeds. The central indicator shows which of the rings counts.

1897





Alpine ski circuit:
Longines times ski
races and is proud
to have the Norwegian skier Aksel Lund
Svindal (picture)
as Ambassador
of Elegance.

ALPINE SKIING

The collaboration between Longines and the Alpine ski circuit began in 1933 when the watch company first timed races in Chamonix, France. Since that time Longines has regularly proven its abilities in the time-keeping of sporting events.

Today the demands of timekeeping technologies are higher than ever before. For a downhill race, for example, the International Ski Federation FIS requires the overall time plus five intermediate times and two speed measurements. Every piece of data must appear on the television screen immediately and with no time delay.

Many years of experience as a timekeeper in so many different athletic disciplines has given Longines the expertise to meet the high demands of skiing and made the company especially well-qualified to be the official timekeeper of the Alpine World Cup and world championships. Longines currently appears each season at about 80 races throughout Europe and North America and provides professional timekeeping and data handling for television coverage.

Aside from timing, Longines has also been involved in this sport on a more personal level. For several years now the company has sponsored Norwegian all-rounder Aksel Lund Svindal who has won the World Cup in four of its five disciplines. Other highlights of his career include an Olympic win and four championship titles at the Alpine World Cups.



1911

The "broken wire" system: Automatic timing with a wire at the finish line was developed in 1911 and used for the first time one year later at the Swiss Federal Gymnastics Meet in Basel.



Longines Rising Tennis Stars development program: The Italian tennis player Francesca Schiavone (third from left) with international up-and-coming talent



Strong partnership: Longines ambassadors Stefanie Graf and Andre Agassi support children through two charitable organizations.

TENNIS-FRENCH OPEN

Since 2007, Longines is the official timekeeper of the French Open at Roland-Garros. Additionally, the company supports the youth by the Longines Future Tennis Aces tournament and the Longines Rising Tennis Stars program.

The French Open has a special significance within the Grand Slam series because it is the only tournament played on clay court. This makes the game slower than on grass or hard courts, extends the time of play, and demands extraordinary stamina from these top professional athletes. For the players, as well as for the spectators, the French Open, like the Australian Open, the Wimbledon Championships and the US Open, offer the exciting chance to win more ranking points than anywhere else. A victory at these tournaments can easily determine who will be named the world's top tennis player.

Since the timing of tennis matches does not require measuring fractions of a second, intermediate times or speed, Longines provides the special display boards on the edge of the courts. These "corner clocks" inform the players and audience of the time, length of play and the temperature on the court.

MILESTONES IN TIMEKEEPING



933

Auto racing: The 1933 Grand Prix in Brazil was timed by Longines.



Winner of the youth tournament, Longines Future Tennis Aces 2011: Marko Osmakcic, holding his trophy

NGINES

However, the involvement of Longines is not limited to providing technical equipment, but includes a close relationship to the players. And who would be a better ambassador than one of the most successful tennis players of all time? Andre Agassi has been the face of Longines on sand courts around the world. With assistance from Longines he promotes the sport of tennis and raises funds for his charitable organization, the Andre Agassi Foundation for Education.

Agassi's wife, the renowned German tennis player Stefanie Graf, is also a Longines ambassador. She heads a charitable organization, Children for Tomorrow, with the goal of supporting and initiating projects that provide assistance to children and families who have become victims of war, persecution, exile and violence. (You find more information on the organizations of Graf and Agassi in chapter "Ambassadors of Elegance.")

For the annual Longines Future Tennis Aces tournament Longines invites children under the age of 13 to the Roland-Garros stadium to compete. Winners proceed to an exhibition match against two legendary ex-professional players.

Slightly older is the group of gifted players supported by the Longines Rising Tennis Stars program. Since the French Open in Spring 2011, the sponsoring program has benefited 17- to 23-year-old players from the entire world. It's one way Longines ensures that future talent does not remain undiscovered due to financial hardship or from lack of support.



Watch tower: Longines was present at the 1954 Football World Cup in Switzerland.

1954

Harmony in movement: Athletes in the 2010 World Championship in Rotterdam. The Netherlands

ARTISTIC GYMNASTICS

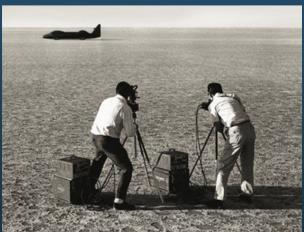


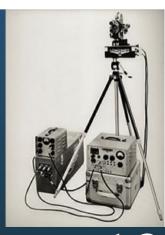
Gymnastics on the floor or on an apparatus requires athletes in top physical and mental condition. Virtually no other discipline demands such a variety of highly complex movements, and - even more difficult - these must also be executed smoothly and seamlessly. The elegance of gymnastics originates from the special rating system at competitions. The jury awards points for perfect technique as well as impeccable body position during the execution of all the different movements on the floor exercise, bars, pommel horse, rings and balance beam, as well as in the jumping disciplines such as the vault and springboard.

Longines has been involved in Gymnastics as early as 1912, and since 1989 the company has been the official timekeeper and data handler at the World Championship of the International Federation of Gymnastics (FIG). With the technology provided by Longines the name and personal data of each competitor are

MILESTONES IN TIMEKEEPING

No one faster: The photo-finish system Chronocinégines, developed in 1954, recorded Donald Campbell's 1964 world speed record of 648.6 km/h.





Happy winners: Romania's Ana Porgras and Japan's Kohei Uchimura won the Longines Prize for Elegance at the World Championships in October 2011 in Tokyo.



displayed to the judges and the public. These include the total points and times from the individual events, since every exercise has a specific maximum time.

Longines also takes the opportunity presented by the elegant, athletic ambience of the World Cup competitions to award the Longines Prize for Elegance to one male and one female gymnast. Winners are selected by a

jury comprised of representatives from the watch industry, FIG President Dr. Bruno Grandi and former gymnasts. Going even farther beyond the official results of the competition, the jurors pay particular attention to the grace, beauty and harmony of the athlete's movement – elegance in the best sense of the word. Each winner receives a Longines watch and a monetary prize.





1969

Ice and snow: Longines timed events at the 1969 Alpine ski competitions in Kitzbühel, Austria.



Maximum grace: Evgenia Kanaeva during the Gymnastics World Championships 2010 in Moscow



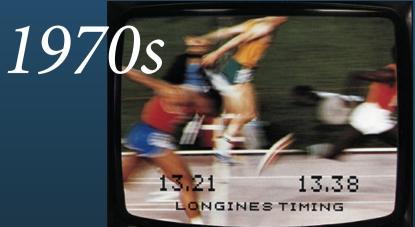
RHYTHMIC **GYMNASTICS**

In this sport, gymnastics and dance are combined and performed to instrumental music in a complicated display of extreme physical control and flowing movement. Clubs, hoops, balls and ribbon are integrated in harmonic routines where certain specific elements of difficulty (such as pirouettes or jumps) must be executed faultlessly. Like artistic gymnastics, the world championships are organized by the International Gymnastics Federation (FIG) and again, Longines is responsible for timekeeping, calculation of points and display of the results.

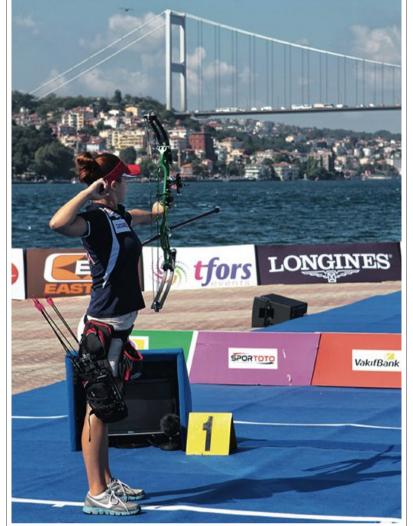
Longines awards a Prize for Elegance here, too. In addition, the Russian gymnast Evgenia Kanaeva strengthens the company's association with this sport in her role as Ambassador of Elegance. Counted among her numerous successes are Olympic victories in Beijing in 2008 and in London in 2012, as well as multiple European and World Championship titles in both individual and team competitions, making Kanaeva one of the most successful Ambassadors of Elegance ever to represent the Longines name.

Expressive performance: The Longines Prize for Elegance went to France's Delphine Ledoux at the 2011 World Championships in Montpellier.

MILESTONES IN TIMEKEEPING



Progress in technology: Times began to be shown directly on television screens in the 1970s.



Highest precision: USA's Erika Anschutz won the Archery World Cup final in September 2011 in Istanbul.



World champions: Erika Anschutz and Rodger Willet, Jr. received the Longines Prize for Precision and monetary award from Longines representatives.

ARCHERY

Competitive archery steadily continues to gain in popularity. The most commonly practiced archery discipline - and the only one included in the Olympics – uses a recurve bow which has stabilizers and complicated targeting sights.

Anyone wishing to attain international success in this sport must have a high degree of concentration and precision, and quiet hands and nerves - the same skills that that

are needed for traditional watchmaking. Reason enough for Longines to be the official partner and title sponsor of the Archery World Cup since 2009. And as a complement to the Longines Prize for Elegance, the company also awards the Longines Prize for Precision each year on the occasion of the World Cup finals: an honor specially created for precision sports.

Racing: In the 1980s, Longines was the official Formula 1 timekeeper and partner to the Ferrari and Renault teams.



ELEGANCE, TRADITION AND TOP AND TOP PRICE BUCHER BUCHER AND TOP PRICE BUCHER AND TOP PRICE BUCHER AND TOP PRICE BUCHER AND TOP PRICE BUCHER BU

WatchTime spoke to **NAYLA HAYEK**, Chair of the Board of Directors for Swatch Group.



ongines has been extremely successful for many years now. Currently the brand is selling more than a million watches per year. What, in your opinion, are the reasons for this level of success?

Longines is attractive to women who place great value in elegance and to men who are interested in sports, and vice versa. This is a high-quality product. And the company, which is both very traditional and modern, exudes a great deal of charisma and carries this message throughout the entire world. But most importantly, the company's success is due to the wonderful work performed by Longines employees worldwide.

How is the success of Longines distributed geographically on different international markets?

Swatch Group watch brands are all active worldwide. I cannot reveal how they perform in specific markets, however.

Among other things, you've been responsible in the past for the markets in India and the Middle East. What developments do you see in the watch markets there, both now and in the future?

My involvement in the Middle East is ongoing. Both markets are currently performing very well and all indications suggest that this will continue.

Longines is also very successful in China. To what do you attribute this particular success?

Longines has been active on the Chinese market for quite some time. The preparatory ground work there is now beginning to bear fruit. Chinese customers purchase Longines watches for the same reasons as those in other markets – they want a high-quality elegant or sporty Swiss watch with a unique flair. And the Chinese market, with its population of 1.3 billion, is currently the largest market in the world and is in no way fully developed yet!

Which markets could be better developed for the brand? The American market, for example, still has potential for Longines.

What strategic role does Longines play within the brand portfolios of Swatch Group?

All of our watch companies play a strategic role, but it is the interplay of all the brands that is most significant from a strategic point of view.

What is your personal view of Longines? How would you describe the Longines image?

All Swatch Group watch brands have a specific message, not just an image. And the message of Longines is elegance, linked with tradition and top performance. The brand conveys these qualities very specifically and, as we're happy to report, quite successfully.

Longines has enjoyed a long history in timing sporting events and is now involved in a wide range of sports such as skiing, tennis, gymnastics and equestrian sports. Are there other sports besides these that would be a good match with Longines?

Athletic elegance is the common feature that links all the different Longines sport disciplines. Currently the Longines sports calendar is very full – but that doesn't mean that in the future other sports won't play a role. There are no plans in the regard at the moment, however.

Your father, Nicolas G. Hayek, is cited as the savior of the Swiss watch industry, as well as a great visionary. What, from your current perspective, were his most outstanding achievements?

Yes, my father was truly a visionary who accomplished a great deal in the watch industry. His most outstanding achievements are well documented, and they continue to be fresh in my mind today and will remain with me my whole life.

The early 1980s was an exciting time. Your father's decision to merge the weakened watch groups SSIH and ASUAG to create SMH (now known as Swatch Group) was a revolutionary event for the watch industry as well as for your family. How did you perceive this at the time? As you say, it was a revolutionary event for us too, and it demanded a huge amount of personal involvement and emotion from my father and my mother as well.

What characteristics did you inherit from your father? And what are among the most important things you learned from him?





Nayla Hayek with Pius Schwizer, winner of the Longines Trophy, at the CSIO Switzerland 2011 in St. Gallen

That is very difficult for me to judge. You would have to ask the people who know me best. What I did learn from him is most of all to be myself, and to believe in myself, and remain true to myself.

You have been a successful horse breeder for many years. Can you tell us exactly what you do?

Yes, I do breed horses. When I am with the horses I do what all horse owners do – I look after them, feed them, I care ...

What is it about horses that fascinates you?

Just like with people. Not every horse fascinates me to the same extent. Each breed, and each horse within that breed is so very different.

How do you coordinate this work with your responsibilities as Chair of the Board of Directors at Swatch Group? Sometimes it is difficult to keep everything under one umbrella. But I try my best.

What characteristics does a successful breeder need to bring to the table?

Patience and imagination are first and foremost, along with the courage to make decisions.

Are there parallels to the watch business?

Well, you can see for yourself ...

Longines sponsors many different equestrian sports. Does this give you a stronger emotional connection to Longines?

I have a strong emotional connection to all the Swatch Group watch brands. Watches are fascinating objects in themselves. And naturally the equestrian world is very close to my heart and is the reason why I'm often present at equestrian sporting events, especially when Longines is responsible for official timekeeping.

Longines offers most of its watches in the price class that ranges between 1000 and 4000 Swiss francs. Will that remain so in the future?

This market position has proven itself to be very successful for Longines and will most certainly remain so. But just like most of the Swatch Group watch brands, Longines also offers exclusive timepieces that cost a great deal more.





Automatic Cal.
L688.2 with
column wheel, from
2011. Developed
and manufactured
exclusively for
Longines by ETA

Longines produced its *FIRST CHRONO-GRAPH IN 1878* and started a tradition that has lasted for decades.

BY GISBERT L. BRUNNER

TIMIG NASTER n the latter part of the 19th century, the Swiss watch industry experienced a manufacturing crisis. Many owners of watch assembly factories (known as comptoirs) had failed to convert their labor-intensive operations to accommodate more mechanized production methods. Not so in America. Watch manufacturers there recognized the need to update their production process and took action. Those seeking these revolutionary innovations had, in the meantime, already made their presence known in Switzerland. The trade commission, "Société intercantonale des industries de Jura," formed by Longines head Ernest Francillon and other manufacturers from La Chaux-de-Fonds, sent a delegation to the World's Fair in Philadelphia of 1876, which was organized to commemorate the country's first 100 years of independence. The Swiss watch manufacturers never fully overcame their surprise at what they found there. One of their members, Edouard Favre from Le Locle, reported the following: "We visited an enormous showcase belonging to the American Watch Company of Waltham,

the largest watch company in the USA which, according

to the inscription, contained the following exhibits:

2,200 gold and silver watches and watch movements that



Henry Alfred Lugrin's relatively simple MODULAR PRINCIPLE won over the management of Longines.

were the result of six-day production (at 10 hours per day)." With the use of precision machinery, the company was producing large quantities of components for simple watch movements - and high quality ones at that. This resulted in an annual production run of 250,000 units and growing. And it came as a shock to the Swiss representatives.

AMERICAN SUCCESS STORY WITH SWISS SUPPORT

The progress made by Swiss immigrants in the U.S. was made possible with the help and the support of other immigrants who put their creativity and experience to good use in their new homeland. One of these immigrants was Henry Alfred Lugrin, born in 1848. Already a trained watchmaker at age 20, Lugrin came to America in search of opportunity. At the New York watch sales agency J. Eugène Robert (which in 1879 created the Longines importer, A. Wittnauer), Lugrin found a welcoming environment for his many new ideas. Robert allowed him to make prototypes and to apply for patents for his innovative designs. No fewer than 20 patents were issued to Lugrin in the years between 1876 and 1897. He can be counted among the most significant designers of modern stopwatches and chronographs. The best example of his work is a simple yet ingenious chronograph with an intelligent vertical clutch. It was reliable and accurate and could be produced fairly inexpensively thanks to a relatively small number of components. Yet this design was still a far cry from today's friction clutches. The watch movement and the chronograph mechanism were connected by wheels with beveled flanks and extremely fine gear teeth. The greatest advantage of this module was the fact that it could be assembled on the back of any of the commonly found half and two-thirds plate movements. This allowed the industry to meet the increasing demand for watches with a stopwatch mechanism without having to invest in costly in-house designs. Assembly of the chronograph mechanism on the movement side had a considerable advantage over assembly on the dial side, which had been practiced in Switzerland since 1862, because watchmakers could perform service and repair work without having to remove the hands and the dial.

INITIAL SUCCESSES, TOGETHER

The relatively simple modular principle won over the management at Longines. Because there was still no inhouse chronograph movement with an integrated construction, the company acquired a license to use the new modern mechanism. The Cal. 20 H debuted with this mechanism in 1878. The 20-lignes hand-wound movement 20 L, which was known for its reliability and accuracy, served as the base. Lugrin's mechanism expanded it to become a rather simple chronograph without a minutes counter. Its crown pusher controlled the three functions – start, stop and reset – consecutively, via a column wheel. This was a crucial first step. The engineers at Longines then had to adapt Lugrin's ideas so that they could be integrated into the production methods of the manufacture. They found an elegant solution to the problem. The Lépine pocketwatches had become quite popular, offering a variety of exceptionally beautiful cases. The product's designers paid special attention to the fine enamel dials that were carefully finished to the last detail. Longines was on its way to becoming a timing specialist with its mechanical stopwatches and chronographs. And it was precisely these timepieces that gave Longines an overwhelming advantage in the U.S. market where it was possible to build simple, good-quality movements. But building complications like a chronograph, which was of the greatest interest to engineers, scientists, athletes and the military, was admittedly much more difficult.

EVOLUTION, BUT NOT YET A REVOLUTION

Longines took the next step into the future in 1889 with the Cal. 19 CH, based on the pocketwatch movement 19 A from 1880. Its diameter measured 19 lignes, equal to 43 mm. The Cal. 19 A and its Lépine design (with crown winding and three screwed chatons) already differed greatly from the watch movements built by the company





provides an unambiguous key to the correct track.

in its early years. The design of the movement fulfilled management's demands for more economical, mechanized production methods without having to abandon the user's requirements for precise time measurement. The chronograph mechanism mounted on the back of the three-quarter plate still bore Lugrin's mark to some degree, for example, the continued use of the vertical clutch with wolf-teeth wheels. In contrast to the Cal. 20 H, this design had a totalizer that recorded the revolutions of the chronograph hand. The form of the hammer for resetting the stopwatch and counter hands already showed similarities to later designs. Once the large, bimetallic split screw balance achieved 18,000 vph, it was possible to use the 9-mm high Cal. 19 CH, first available in 1889, to precisely record elapsed time to the nearest 1/5 of a second.

SUCCESS STORY

Because the economically produced Cal. 19 CH made it easy for dealers to offer these watches at very reasonable prices, it also won great favor in America. Longines already had another very high-quality chronograph movement when the 19 CH first appeared. Elaborate levers and an elegant cam fine adjustment system in some models made the Cal. 19.73 (from 1887) a real treat to behold. From a technical point of view, the design with column wheel, classical horizontal clutch, jumping 30-minutes counter and two separate reset hammers was also top of the line. For a number of years this watch movement with crown pusher was particularly well suited for a wide spectrum of open-face pocketwatches - particularly double-sided designs with two dials. The front of the watch, with a chronograph, totalizer and hands for hours, minutes and seconds, looked like a classical measuring device. In contrast, the back of the watch was designed purely as a stopwatch and left a great deal of flexibility to add scales tailored to individual needs. Automobile drivers were given a special spiraling tachymeter scale to measure times over a distance of up to 1,000 meters that took into account average speeds ranging





from 12 to 240 kilometers per hour. Another special track design was calibrated to a distance of 100 meters to accurately measure slower speeds.

THINNER AND FLATTER

When Longines introduced its Cal. 19.73 to the market, customers were satisfied with a finished height of 9 mm, but thinner pocketwatches had already become more fashionable by the early 20th century. This trend was unavoidable, even in Saint-Imier. There seemed to be no reason to develop a completely new watch movement in view of the excellent characteristics of the 19.73 caliber. Its mechanism functioned perfectly and still offered many potential design options. The engineers at Longines used this to their advantage. By 1909 the height had been reduced to a remarkable 1.6 mm, while providing the same performance. The movement was renamed 19.73 N (the "N" stood for "nouveau" or "new"). Tradi-

tional features included a variation with a jumping 30-minutes counter, while a concurrent version had an hour totalizer geared toward newer trends. No wonder this caliber was well suited for a wide variety of chronograph types: pocketwatches with an open Lépine design, elegant gold savonnettes with hunter cases, even table clocks. Depending on the design of the dial, the movement's accuracy ranged between 1/5 and 1/10 of a second.

The wide-ranging possibilities offered by the Cal. 19.73 N became clear in the years after 1909. A fundamental modification of the oscillating system with a smaller balance and more powerful hairspring made it possible to record elapsed time precisely to the 1/100 of a second. The central chronograph seconds hand circled the dial in only three seconds. This high-tempo version naturally drew down the available power reserve and reduced it to a few hours. The lack of a time display made it strictly a stopwatch rather than a chronograph. The counter hand recorded time intervals of up to three minutes. The system with a strong hairspring achieved 360,000 vph and required a modification of the chronograph mechanism on the back of the movement. Two additional levers controlled by the column wheel interacted with the balance wheel for starting and stopping.

Moreover, there was also a special countdown version with a frequency of five hertz (36,000 vph) and a 15-minute totalizer. This stopwatch for bombardiers had a chrono hand that moved in the normal clockwise direction. Pressing the stop pusher on the right next to the crown and another push on the crown itself activated an intermediate wheel on the movement side that moved the chronograph hand to the left, starting from its last position.



ALTERNATIVES

The advantages, multiple uses and the resulting success of the Cal. 19.73 N can be seen in its 30 years of uninterrupted production. These specially equipped timepieces were used in sports arenas, laboratories, research facilities and industrial operations. Private citizens and military personnel alike found reason to place their trust in the movement. Only in the late 1920s did Longines decide that its 43-mm diameter was too large. Changes also began to be made to its height. The next step in its evolution would have to wait – the 19.73 N had set a very high standard.

In 1928 the first prototypes appeared of the new basic Cal. 18.72, with a diameter of 39.7 mm and a height of 6.8 mm. Production began one year later. Again, a very classically designed watch movement with column wheel, jumping 30-minutes counter and a frequency of 2.5 hertz formed an ideal foundation for later developments. These included designs with a frequency that was twice as high. The advent of World War II gave rise to a plain, high-frequency stopwatch without a time display. Its tiny balance vibrated at a frequency of 50 Hertz (360,000 vph) for accuracy to the 1/100-second.

DIVIDED TIME

A split-seconds mechanism (*rattrapante* in French) can time two or more events that begin at the same time but are of different lengths. This is achieved thanks to a complex and quite expensive additional mechanism

that couples the split seconds with the chronograph hand. The split seconds hand can be stopped as often as desired with a special pusher and its result can be synchronized with the continuously running chronograph hand.

Longines had to address this area as well. Its engineers returned to an 18-lignes base movement. In 1903 they upgraded this movement with a column-wheel chronograph with semi-instantaneous counter. After the Lépine movement met their expectations, the next step involved adding the rattrapante mechanism. The second column wheel it required was still located beneath the dial in this first split-seconds design, presented in 1905. Normally, braking action is achieved by two jaws that engage with the wheel like a pair of pliers, but in the Cal. 18.89 this occurred only on one side. The split seconds was stopped by applying pressure to one side of the finely geared split-seconds wheel mounted above the chronograph runner. Because of the one-sided wear to the bearing, Longines saw no real future for this complicated but still imperfectly designed movement.

The 19.73 N appeared to offer a better base for a splitseconds chronograph. Longines presented the finished product in 1922. This feature was prominently placed on the back of the movement, equipped with a double jawlike clip and a second column wheel. The polished cover showed the high level of attention to detail – it was meant to protect the outer ends of the clip, and though it was



Hand-wind Cal. 260 with splitseconds (diameter = 24 lignes, height = 14.55 mm), 36,000 vph. Production began in 1957.

WatchTime LONGINES SPECIAL WWW.WATCHTIME.COM

rarely ever needed, Longines wanted the best of all possible solutions. This watch movement was certainly the best that the market had to offer at that time.

LARGER SIZE, GREATER ACCURACY

In 1938 Longines developed a chronograph that was specially designed for use at major sporting events. For the design of the giant 24-lignes (54.14-mm) movement, Longines's engineers took the highly accurate Cal. 24.99 from 1908. Longines had achieved great notoriety at chronometer competitions in Neuchâtel, Kew-Teddington and Washington D.C. with this movement. From the very beginning, flexibility was emphasized in upgrading its mechanics. The chronograph was introduced in 1939 in a basic version with a semi-instantaneous 30-minute totalizer that measured elapsed time to the exact 1/5 of a second, thanks to its large screw balance that oscillated at a frequency of 2.5 hertz. Its intended use at sports competitions made the split seconds indispensable. However, Longines's engineers decided against placing the mechanism on the back of the movement. Instead, they positioned the column wheel, braking lever, splitseconds wheel and its operating lever directly on the front of the plate. This made the long, very delicate splitseconds arbor no longer essential, but servicing the watch required the removal of the hands and dial. An advanced feature of this chronograph rattrapante with two pushers was a hack mechanism to ensure precise setting to the exact second. Variations with a smaller balance and a frequency of five hertz accurately recorded time intervals to the 1/10 second but did not show the time. This was also the case with the chronograph that measured the smallest time interval, which was produced well into the quartz era of the 1970s. In this case, the 1/100-second measurement was possible thanks to a balance frequency of 50 Hertz.

The split-seconds chronograph based on Cal. 19.73N was certainly THE BEST that the market had to offer at that time.



Even though Longines revolutionized the timing of sporting events in 1954 with its quartz-controlled photofinish system "Chronocinégines," the company continued to manufacture mechanical pocket chronographs. Official timekeepers placed their trust in these instruments because of their proven reliability and precision and could not put their full confidence behind modern electronics, always relying on back-up timers. For this reason Longines developed the 24-lignes split-seconds chronograph again in the 1950s, which produced the large, technically complex Cal. 260 in 1957 that could time events accurately to a 1/10 second. In contrast to the previous model, the added feature for the rattrapante was again placed on the conventional side of the movement, the back. Its most unusual feature consisted of the rotational speed of the chronograph and its split-seconds hands. Only 30 seconds - not 60 - were needed to circle the dial, and that allowed for a wider and more precise scale. However, timekeepers were unhappy with the modified dial design. Precise reading of elapsed intervals was possible only in conjunction with the contrasting

Early wristwatch chronograph with

15-minute totalizer. Demands for change were loud and clear. Longines had to react. The Cal. 262 from 1966 again had hands that traveled around the dial once every 60 seconds and ensured that legibility did not suffer. Frank Vaucher, a Longines timekeeper and a talented inventor, placed a so-called "vernier" track at the tip of the orange split-seconds hand. This was an adapted form of the "Nonius," which the Portuguese mathematician Nunes had invented in the 16th century to show 1/10 of a whole. Operation is actually very simple: after stopping the split-seconds hand, one of the nine yellow numerals (that correspond exactly with the outer 60-increment track) shows the exact 1/10 of a second measured after the last full second.

the 13-lignes handwind Cal. 13.33Z (diameter = 29.33 mm, height = 6 mm). Production began in 1913. This watch with enamel dial is from ca. 1915.

With the introduction of the Cal. 262 in the late 1960s, Longines ended its involvement as a producer of precise chronographs for the pocket or lanyard. The electronics developed in house to perfection had pushed aside the mechanical systems that had been developed over the preceding 110 years. High-performance sports had evolved to the point that differences between top athletes were reduced in some cases to such small time spans that even ultra-fast ticking systems had to work precisely in human hands - which, of course, are always subject to individual reactions.

CHRONOGRAPHS FOR THE WRIST

A look into Longines's archives reveals the first timepieces created for the wrist around 1896. The first wristwatch chronographs followed in 1913. Simple, round cases housed a completely in-house movement with column wheel and horizontal clutch. The regularly updated Cal. 13.33 Z was produced until 1936 and had a diameter of 13 lignes or 29 mm. The height, at six mm, remained within the range of its contemporaries. A crown pusher consecutively controlled the three functions: start, stop and reset. Setting the hands using the crown in an extended position was not yet possible in the early versions of the movement. The crown function was switched by pressing a small stylus on the edge of the case at 2 o'clock. A study of the extraordinary mechanism reveals certain similarities with its larger cousins of the same period. Among its unique features was the attachment of the jumper spring for the minutes counter driving wheel attached to the balance bridge. The chronograph hand advanced forward in increments of 1/5 of a second. After each revolution the 30-minute totalizer jumped accurately ahead by one position. Longines offered simpler dials plus the addition of a wide variety of different scales, such as production and pulse counters, tachymeters and/or telemeters. Designs were extensive, as the manufacture produced the movement in both savonnette and Lépine versions.

In addition to the Cal. 13.33 Z Longines also offered in the 1920s and 1930s a 5-mm hand-wound movement whose ébauche originated from the renowned supplier Valjoux. For early wristwatch chronographs with the Longines logo, it was easy to recognize the 15-lignes Cal. 22 GH even without checking inside the case, thanks to the chronograph pusher located between 1 and 2 o'clock. The purchased ébauche did not change the exacting demands of carefully beveling and polishing all steel parts of the mechanism visible from the back.



EXCLUSIVITY AND VERSATILITY

Despite its many exceptional features, the chronograph movement 13.33 Z had two drawbacks. First, its complex design was relatively expensive. Second, the presence of only one pusher was no longer considered modern in the 1930s. By 1936 the Cal. 13 ZN was introduced in variations with one or two pushers. Because chronographs were so desirable in the 1930s and Longines tried to achieve vertical integration of the production process for economic reasons, even the tools for creating the steel parts were made in-house. This provided greater flexibility and encouraged rapid advancement in product evolution. And the 13 ZN provided Longines with the aura of even greater exclusivity since only a few watch brands at that time had their own in-house chronograph movements. Even the most well-respected brands on the market generally purchased their ébauches from the chronograph specialist Valjoux SA. Product planning geared towards versatility can be seen at Longines just from their totalizers: classic presentation of the semi-instantaneous 30-minutes counter at 3 o'clock, and the modern, exclusive combination of centralized 60-minutes and offset 12-hour totalizers in 1942. Both advanced smoothly when the chronograph function was engaged. In the development of the hour counter, Longines engineers clearly were thinking outside the box. The Cal. 13ZN stood out with its integrated construction when it was still more common to place the barrel-powered mechanism beneath the dial.

Not least of all, the 13 ZN also had a flyback function that permitted quick resets and restarts of the chronograph without a hack mechanism, all with a single press of a button. This function was used by airplane pilots when they flew in circular paths.

Greater exclusivity:
Only a few watch brands
of that time had their
OWN IN-HOUSE
chronograph movements.



pressive chronograph movements available for watches. But exclusivity and craftsmanship also demand a comparatively high price, which limited the marketability of the movement. In order to remain viable in a difficult and competitive market, Longines needed to offer a more economical alternative. After many years of preliminary work, this was achieved in 1947 in the form of the 131/4lignes, 6.2-mm-high, hand-wound movement, 30 CH. Even though the management in Saint-Imier paid special attention to costs in design and production, no shortcuts were taken in matters of quality. The pricier column wheel was again selected over a more economical shuttle, and even the steel components were finished. Longines had set high standards for chronographs and retained them, despite the pressure of the additional expense. Longines offered the Cal. 30 CH in classic and sporty cases starting in 1947.

OTHER STOPWATCH MECHANISMS

Longines broke new ground with complete chronograph mechanisms and much more. For specific applications the brand also built simpler mechanisms that were reduced to their functional bare bones, like the Siderograph and Stop Seconde, which have become favorite collectors' pieces.

The Stop Seconde used as its base the 12-lignes, handwound movement 12.68 Z, first launched in 1938. It operated without an independently functioning chronograph hand for start, stop and reset functions. The minutes counter was added to the updated version introduced in 1939. Unique to its type was the central pair of hands that could be controlled by a push-piece. Pressing the push-piece caused the horizontal clutch to open and the hands to remain in position until the push-piece was released, at which point they began to advance again immediately. The reset function required pressing down the push-piece fully. This type of mechanism required fewer components, so Longines was able to omit the costly column wheel. Moreover, its height of 5.9 to 6.1 mm was also easier to work with. Even though the manufacture used high-quality components such as a Glucydur screw balance and a self-adjusting overcoil hairspring and spared no expense in finishing, the price was still considerably less than other conventional chronographs. But sales did not achieve expected levels due to massive export restrictions during World War II.

The extraordinary Siderograph was also introduced in 1939. This watch represented a complex development in the evolution of the Lindbergh Hour Angle watch used to determine exact longitude in aircraft navigation in combination with a sextant. Its most striking feature was the finely detailed dial design that permitted degrees and minutes to be read in sidereal time. To accomplish this, Longines's watchmakers adapted the hand-wound movement 37.9 to equal the duration of the average sidereal day, which is three minutes and 56.555 seconds shorter than an average solar day. The Siderograph was not designed to tell standard, civilian time (measuring exactly 86,400 seconds per day). The split-seconds jaws and column wheel were mounted on the back of the watch movement. A resetting device was essential in this case. Pressing the pusher at 4 o'clock stopped the split seconds. Pressing the pusher again allowed it to catch up and synchronize with the continuously advancing second hand.



Sidereal time model "Siderograph" with double rattrapante and contacts for time signals, from ca. 1940



A NEW ERA

"nonius" track on the right to read eighths of a second. The 1950s saw the end of chronograph manufacturing at Longines. Increasingly steep competition demanded a new vision based on superior quality, mass-produced ébauches such as those produced by Valjoux – one reason why the hand-wound column-wheel movement Valjoux 72 is found in the "Nonius" model made in 1964 and other chronographs. Beginning in the late 1970s the highly favored, sturdy Valjoux 7750 was placed more and more often in watch cases. First introduced in 1973, the automatic movement – with a balance frequency of 4 hertz, a rocking pinion and cam – quickly became an essential part of the chronograph scene.

The new century brought about many changes and Longines was no longer satisfied with the 7750 alone. Company management turned to the ébauche manufacturer ETA – a company owned by the Swatch Group and owner of the rights to Valjoux – with a request to build an exclusive automatic movement. They wanted the new movement to have all the positive features of the 7750 but still contain a classic column wheel while remaining within a reasonable price range. After several years of research and development, the brand-new L688.2 caliber debuted in 2009. This new movement was developed and financed by Longines and produced by ETA. ETA chris-





The **NEWEST VARIATION** of Cal. L688.2 is called L788.2.

tened the 131/4-lignes movement with automatic winding, a power reserve of 54 hours, and 27 functional jewels, the Cal. A08.231. Old standbys include a unidirectional ballbearing rotor, a rocking pinion clutch and the oscillating and escapement system. Its Glucydur balance and flat Nivarox hairspring vibrate at a frequency of four hertz, which permits a timing accuracy to 1/8 of a second. The totalizers make it possible to record time intervals of up to 12 hours. This newcomer is not viewed as a derivative of the Cal. 7750 but as a fundamentally new design. Since the load on the column wheel is distributed over six columns during on/off cycles, wear is less of a factor than with the shuttle or cam that, due to its back-and-forth action, concentrates friction and pressure solely on two points. The advantages include smoother cycles, crisp shifting action and fewer components. A high degree of serviceability is ensured with a self-regulating reset hammer for the chronograph hand and minutes totalizer. Two pushers are provided for start, stop and reset functions.

The newest variation, the L788, has only one crown pusher and recalls the earliest years in chronograph history. Only 180 numbered anniversary pieces of the Longines Column-Wheel Single Push-Piece Chronograph 180th Anniversary Limited Edition were created for the occasion. The model used for this retro chronograph hearkens back to 1913. Features indicative of the time include a white dial with a red 12 and a round case with pivoting wire-type lugs. Clearly all good and beautiful things will continue to have great appeal throughout the 21st century.

The new Longines Avigation Type A-7 with Cal. L788.2

HEROES OF THE SKIES

From the very beginning of aviation history, Longines has been at the forefront in providing pilots with the correct time during their adventures in the air. A number of **SPECIAL MODELS** were created over the years for both civilian and military purposes. The following pages show four of the most important watches that helped pilots lead the way.

BY ALEXANDER LINZ



A small adjustable internal dial permits the synchronization of the pilots' watch with the standardtime signal transmitted by radio.

THE INGENIOUS IDEA OF TIME SYNCHRONIZATION



In 1919, at a time when aviation technology was still more or less in its infancy, the watch manufacturer Longines had already begun officially supplying watches to the Fédération Aéronautique Internationale (FAI). The world's most famous pilots of the day were relying more and more on timepieces from Longines during their courageous and pioneering flights. Besides Colonel Charles A. Lindbergh, these daring aviators included Clarence D. Chamberlin and his passenger Charlie Levine, who was the first person to be flown over the Atlantic only a very few weeks after Lindbergh's historic flight in 1927; the pilot and U.S. Marines Rear Admiral Richard Byrd; the Italian long-distance aviator Francesco de Pinedo; the Swiss pilot, photographer and travel writer Walter Mittelholzer; one of the first aviation entrepreneurs, the American businessman, pilot and film producer Howard B. Hughes; as well as Hans von Schiller, who had commanded the Zeppelin LZ 127. Amelia Earhart was also a member of this group as the first woman to cross the Atlantic in 1928 in a 20-hour non-stop flight.

But it wasn't only these heroes of the airways who had found a favorable partner in Longines. Commander Philip van Horn Weems, instructor at the Naval Academy at Annapolis, Maryland, had authored several reference books on flight navigation and navigational instruments. Lindbergh was among his students. Based on the necessity of knowing the exact time for correct navigation, Weems developed the "Weems Pilot Watch" in collaboration with Longines. The system he invented permitted an uncomplicated and precise synchronization of the watch with a time signal transmitted regularly by long or shortwave without having to adjust the minutes and hour hands. Either a special rotating bezel or central subdial were used instead, both of which were provided with a 60second scale. Depending on the time signal the pilot could

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Photos by John Goldberger, Longines Watches, Ebner Verlag Ulm

Weems' idea: An adjustable inner dial allowed the pilot to synchronize the watch precisely with standard time. Variation: Weems watch with a 24-hour dial (above right)

correct any deviation on his own watch from the standard time and take it into account for additional calculations.

For long-distance navigation even the difference of a few seconds causes enormous errors in calculations of location and course. The more accurate, the better. In cooperation with Longines, Weems finally submitted his wristwatch for patenting in 1929, which was designed as a complement to the much larger cockpit chronometer. The following detail might be worth noting: The patent for the watch was awarded in 1935. Perhaps someone at the patent office just didn't understand the simplicity and ingeniousness of this particular invention.

The current remake of the watch from Commander Philip van Horn Weems, the "Weems Second-Setting Watch," has a large and masculine design. It is equipped with the automatic movement L699 whose balance vibrates at 28,800 vph. It has a power reserve of 46 hours. The stainless-steel case has a diameter of 47.5 millimeters, and an additional caseback cover protects the actual sapphire back. Once it is open, it is possible to see the engraving and numbering as well as the automatic movement. Just like at the beginning, the opaline, silvered central subdial today makes possible the exact synchronization with the standard time signal emitted by radiocontrolled or atomic clock. The Weems Second-Setting Watch comes with a brown alligator strap, a "Charleston" clasp and an extension piece.



The Lindbergh
Hour Angle Watch:
The current model
is a true remake of
the original model
and, with a diameter
of 47.5 mm, the
exact same size.

THE HOUR ANGLE WATCH

Charles A. Lindbergh designed his Hour Angle Watch based on the watch from Commander Philip van Horn Weems.

Charles A. Lindbergh was Weems's student at the Naval Academy in Annapolis. He took Weems's discovery to another level and considered how the Greenwich hour angle of the sun could be read from a wristwatch. Using the hour angle it is possible to calculate the longitude of a specific celestial body.

The earth turns on its axis once every 24 hours. This is equal to 180 degrees every 12 hours, or 15 degrees in 1 hour or 15 arc minutes in 1 minute. Lindbergh's discovery made it possible for the watch hands to show not only the exact time but also the corresponding Greenwich hour angle of the sun. One hour corresponds to 15 degrees. Once the hour hand has circled the dial in 12 hours, it will have reached the 180-degree position. The track for the minutes hand on the bezel divides the 60 minutes of an hour into 15 degrees, where each minute represents 15 arc minutes. On the small rotating dial in the center the seconds hand shows the exact number of arc minutes between zero and 15 that pass in 1 minute.

It was then possible to read the Greenwich Hour Angle of the sun as follows: Let us assume that our

Longines watch shows 4 o'clock, 37 minutes and 9 seconds. After receiving the standard time via signal transmitter we can correct the small central subdial by +3 seconds, so that we now have the exact time to the second. It is therefore 4 o'clock, 37 minutes and 12 seconds. The hour hand shows 60 degrees, the minute hand shows nine degrees and 15 arc minutes, and the seconds hand shows three arc minutes. Add that all together and we get 69 degrees and 18 arc minutes. However, this value is correct only when the difference between the true and the average solar time is equal to zero. If it varies (and this does occur to the amount of +16 minutes on November 3 and -14 minutes on February 11) this variance must be included in the calculations. Charles A. Lindbergh had considered this circumstance as well by making a rotating bezel to provide for corrections.

Let's assume again that our Longines watch shows 4 o'clock, 37 minutes and 12 seconds. Because of the equation of time this time shows a shift between the true and average solar time of -4 minutes and 50 seconds. Now we turn the bezel 4 minutes to the left and

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read the following: The hour hand again shows 60 degrees, but the minutes hand shows 10 degrees and 15 arc minutes and the second hand again shows 3 arc minutes. However, since we initially disregarded the 50 seconds when turning the bezel (since they are hard to adjust) they will need to be taken into account now for our calculation. On the small subdial we read 121/2 arc minutes for the 50 seconds, and add this to the other amount to get a total of 70 degrees and 30½ arc minutes for the Greenwich Hour Angle of the sun.

What is the basis for this calculation? If you stand on the Greenwich Meridian exactly at noon, the sun will be directly south at that point. Its hour angle at this moment is zero degrees. Three hours later its hour angle will be 3 hours. As the sun appears to circle the Earth, it sets and rises and approaches the Greenwich Meridian again. At 11 o'clock in the morning, the hour angle is equal to 23 hours. At 12 o'clock, the cycle begins again at zero. One cycle around the Earth is therefore 24 hours or 360 degrees. If one measures the hour angle starting at Greenwich, this is called the Greenwich Hour Angle (GHA). The hour angle is always measured traveling to the west and specified as an angle in degrees, arc minutes and arc seconds. With a very accurate watch it is possible to determine the distance the sun has already "traveled" around the Earth and thereby determine the exact hour angle. This is only possible when we know the difference between the true and the average sun time and can take this correction into account.

Lindbergh's ideas were realized in 1931. The Lindbergh Hour Angle Watch was first issued to help pilots determine longitude during long-distance flights and to simplify navigation. In its current version the Lindbergh Hour Angle Watch measures 47.5 millimeters across, making it the exact same size as the original. Beneath the white dial with its opaline center subdial ticks the Longines automatic movement L699, whose balance vibrates at 28,800 vph. Cases are available in steel and yellow gold with a double caseback. The functions of the Hour Angle Watch today are the same as they were at the beginning. It is still possible to correct the running seconds of the watch with the standard time and determine the Greenwich Hour Angle of the sun.



Photo by John Goldberger, Longines Watches, Ebner Verlag Ulm

The Lindbergh Hour Angle Watch is based on the idea and drawing of Charles A. Lindbergh (top).

Degrees and arc minutes: The Lindbergh watch allows for the reading of the Greenwich Hour Angle.



STRICT STANDARDS

This special aviators' watch was commissioned from Longines by the U.S. Air Corps. A comprehensive list of specifications outlined their wishes and left nothing to chance.

> A list of technical specifications issued by the Material Division of the U.S. Air Corps was typed up on October 10, 1934. This seven-page standard-sized document contained a finely detailed description of what a brand-new aviators' watch should do and what it should look like. On April 4, 1935, the U.S. Army placed an order at Wittnauer Co. in New York (Longines's former agent in the USA) for 175 pieces of the "Avigation (Hack) Watch Type A-7." Three examples of the watch were expected to be submitted within only 30 days with all the specified details and engravings. Only then would the order be confirmed and the remainder of the watches delivered, and these were expected to be produced and delivered in only 120 days. What the Air Corps was looking for were watches for its pilots that had to be easily and correctly legible when both hands were on the airplane controls. The extremely large watch (for those days) was intended to be worn on the inside of the lower left arm so that the pilot could continuously read the correct time without having to turn or twist his wrist, and still easily manipulate the watch with his right hand. For this unusual configuration the dial had to be rotated 45 degrees to the right. The crown was supposed to be located at the 12o'clock position which means, as compared to a normal watch, it was placed at the 1:30 position.

> The Air Corps specified only one crown, and the Avigation Type A-7 was to be wound and set with this single crown and also control the start, stop and reset of the chronograph. If you try to imagine how this works, it comes extremely close to the de facto handling of a classical manually operated stopwatch - with the single difference that the operator is not holding the watch in his hand, but is wearing it on the inside of his lower arm. Another advantage of this offset arrangement was to reduce pilot error. "12 o'clock" was always oriented in the direc-



The Longines Avigation Watch Type A-7: The new model is based on a historic watch with an added date and tachymeter scale

tion of flight, and/or pointed towards the other cockpit instruments - this made operational errors impossible even when flying in turbulent weather or in low light. The technical specifications of the Material Division of the Air Corps called for a matte-black dial, printed in white with railroad markers and a totalizer with a 30minute subdial for the chronograph. It was to be placed at 12 o'clock and the running seconds at 6 o'clock. It is both interesting and remarkable - the Material Division of the Air Corps clearly defined the Avigation A-7 in its specs as a wristwatch, despite its then unusual size of 51 millimeters. Nevertheless the wristwatch was designed to be easy to take apart and attach to a watch chain in order to be worn and used privately as a pocketwatch. Wearing such a giant of a watch on the wrist clearly drew attention at the time, which was most certainly not in the interest of the Army.

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Various military specifications were found on the outside of the hinged back.

AVIGATION HACK WATE SPECIFICATION Nº 835-2409 PLONGINES 1872



Photos by John Goldberger, Longines Watches, Ebner Verlag Ulm

The Material Division of the Air Corps was particularly meticulous and precise regarding the quality of the case and the accuracy and design of the watch movement. It specified a lever escapement, a Breguet overcoil and a power reserve of at least 30 but not more than 56 hours. The watch lubricants had to tolerate a temperature range spanning -20 to +45 degrees. Requirements included a rate accuracy of ±10 seconds per day in horizontal and vertical positions, at room temperature, with daily winding, and without a running chronograph, and the variation within those 10 seconds could not be more than 3 seconds. When the chronograph was engaged, and had to be switched on and off every 6 days, the rate deviation was permitted to be only 15 seconds per day and the variation of the daily deviation could not exceed 10 seconds.

The Division also demanded an extensive testing of the start, stop, flyback and reset functions. Special care had to be taken to ensure that the stopwatch hand always started exactly at zero and stopped precisely. One test at +35 C required that the watches deviate by only five seconds from the results obtained at room temperature. At -20 C a deviation of 15 seconds from the room temperature results was permitted. The case was to be made ideally of nickel or a nickel alloy with a chrome finish and had to be absolutely resistant to moisture and dirt. The crystal had to be of special quality and also be unbreakable. If possible, only antimagnetic materials were to be used in the manufacture of these watches.

Longines placed the 18-lignes column-wheel pocketwatch caliber 18.72 (diameter = 39.7 mm, height = 6.8 mm, 16 jewels, balance frequency = 18,000 vph) in the Avigation Type A-7, which was used by the *manufacture* since 1929. This also met the demands of a "hack watch," which is a watch that can be synchronized with the current time as well as a second reference time – for example, by the start of the chronograph at the beginning of a mission. The terms "U.S. Army A.C. Avigation Hack Watch Type A-7" was to be engraved on the back of the case in addition to the serial number and order number, "Specification Number 27748" and the Longines serial number.

The specifications from the Material Division of the Air Corps were rather demanding. One assumes this is the reason why only two other manufacturers aside from Rotated dial: The Avigation A-7 was designed to be perfectly legible for pilots of the U.S. Air Corps (above left).

The civilian variant of the Avigation A-7 is recognizable by its lack of railroad minutes track on the dial (above right).

Longines were in the position to manufacture a watch of this type: Gallet and The Meylan Watch Co. Based on current information, the Avigation Type A-7 watches were worn by pilots officially until about 1943. At the same time Longines was also manufacturing a civilian version of the watch with a diameter of "only" 49 millimeters. Some of these watches differed from the military version primarily with a modified dial with a tachymeter scale. And this brings us at last to the appearance of the 2012 model that is closely based on one of the civilian versions of the Avigation Type A-7 and has an added date indication.



Like its predecessor: The new Longines Twenty-Four Hours also has an onion crown and a central seconds hand (far left).

The hinged back of the replica model covers the automatic Cal. L704.3.

24 HOURS ON A SINGLE DIAL

In the 1950s, Longines created a special watch for the navigators of Swissair.

> These days, on-board flight computers calculate the path from one place to the next. They get their information from the Global Positioning System (GPS), from various radio beacons on the ground and from the Inertial Navigation System (INS). Together these systems supply the Flight Management Computer (FMS) with all the necessary data required to calculate the correct flight path. Before departure the entire route is entered directly into the FMS or sent via laptop. The two-man crew can then concentrate on their duties during the flight and fly the airplane or simply check the controls, depending on the segment of the flight. Exact time in the cockpit these days is supplied by the GPS and an independent digital clock. And the pilots of the military forces always wear a specific type of watch during difficult missions to serve as an additional backup if necessary.

Many years ago cockpits looked very different than they do today. In the absence of today's powerful computers, work in the cockpit was distributed among three people: the captain, the copilot, and the navigator who sat behind the two pilots in an area full of displays and controls. The duty of the navigator was, as the name indicates, to navigate. He was also a kind of on-board technician who monitored many of the systems that are now controlled by computers. The navigator also ensured that fuel was pumped from one tank to another for optimized trim of the airplane. The navigator was primarily concerned with flight preparation and execution. He calculated and continuously checked the course of the airplane with all his various tools and instruments and he collected any available data from radio beacons and navigational aids on the ground.

During a long-distance flight an airplane may fly through numerous time zones whose times differ from the UTC. The standard time must, therefore, be the same in every cockpit. Earlier GMT (Greenwich Mean Time) was the standard time; today it is UTC (Universal Time Coordinated) in both air and sea travel. There is also no difference between civilian and military time. Both base

their systems on this standard time. This ensures that an event that takes place at 08:00 UTC takes place throughout the entire world at the same time, regardless of in which time zone a crew might be.

Passing through different time zones in an airplane often erases the boundary between day and night. And it was for exactly this reason that the Longines wristwatch with its 24-hour display came into play. Presenting the entire day on the dial - with the hour hand circling the watch only once a day – excludes the possibility of making a mistake when reading the time. This made this type of watch indispensible for the navigator in the cockpit. A model of this type returned to the Longines Museum in 2009. It was the watch owned by the Swissair navigator Harry Hofmann, who wore it during flights on airline types DC-4, DC-6, DC-7, DC-8 and Coronado until 1974. The 24-hours watch was built by Longines especially for these applications at the beginning of the 1950s and bears the serial number 8237331. It is equipped with the Longines Cal. 37.9N with a central seconds indication which was developed inhouse in 1940. "Swissair" was engraved on the stainless-steel caseback. Research in the Longines archives shows that Harry Hofmann's watch belonged to a series of only 70 pieces that were built between 1953 and 1956 exclusively for the Swiss airline Swissair.

This is an exciting story and also a good reason to revive a rarity such as this. The current version is called "Longines Twenty-Four Hours." The 16½-lignes automatic Cal. L704.3 ticks beneath the dial today. The transmission is adjusted to ensure that the hour hand makes a complete rotation around the dial only once every 24 hours. The balance oscillates at 28,800 vph and its power reserve equals 46 hours. The stainless-steel case has a diameter of 47.5 millimeters. The dial is presented in a perfect harmony of matte black background and 24 white Arabic numerals with Super-Luminova coating.

The railroad minutes track simplifies reading the minutes. The time is shown traditionally with hands, which are also coated with Super-Luminova. Like the original model from the 1950s it also has a central seconds indication – a clever feature that improves legibility. A new addition is the date window located at 3 o'clock. The Longines Twenty-Four Hours has a sapphire crystal with nonreflective coating and a hinged cover to protect the sapphire caseback. Opening the hinge allows the wearer to admire the movement and observe the vibration of the balance wheel. Inside the cover one can also see the engraved inscription "Re-edition of a Longines navigation watch exclusively made for Swissair navigators, 1953-1956" as well as the serial number. The watch comes with a black alligator strap and is waterresistant to 3 bar.

After only a few days anyone can easily become accustomed to the 24-hour dial. Globetrotters who use their wristwatches to show their home time or another reference time (and always mentally convert to their current time zone) will find the Longines Twenty-Four Hours to be a great alternative with an exciting story.



Swissair navigator Harry Hofmann wore this watch with 24-hour indication until

These special models were engraved on the caseback with "Swissair" and the numeral 48 (far left).

indication 1974 (left).

Photos by John Goldberger, Longines Watches, Ebner Verlag Ulm

HISTORY | 180 Years of Longines

AT THE FORE FRONT



Workers leaving the Longines company, 1911

FOR 180 YEARS

It all began with a small "comptoir détablissage" in Switzerland's Saint-Imier region. From these simple beginnings came an advanced watch manufacturing center which grew into a successful watch brand with a global presence. The *HISTORY OF LONGINES* is filled with innovation, optimism and the entrepreneurial spirit.

BY MARIA-BETTINA EICH

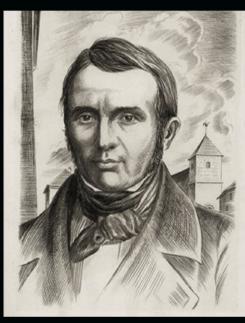
he year 1832 marked the beginning of the history of Longines. At the time, watch production in Switzerland looked radically different from the modern methods employed today. There were no factories where workers and craftsmen arrived in the morning and left each evening. Instead, watch manufacturing took place inside workers' homes in the form of contract work for "comptoirs" – small businesses that organized and financed the production of watches and sold the finished product. Comptoirs purchased watch components from suppliers and then had the parts delivered to the homes of several independent workers who usually specialized in a single aspect of watch production. In many cases the workers were farmers who used this as an opportunity to earn additional income, especially during the winter months.

Thanks to this tradition, watchmaking remains strongly rooted in the region between Geneva and the Jura, and most deeply in the lives of the people living there.

Once a comptoir received the finished watch and the workers had been paid, it was time to focus on selling the watch. Here was the opportunity to establish a name and a reputation. Watches would be engraved with the name of the comptoir as a guarantee of reliability. Comptoir signatures were a forerunner of today's brand names and logos.

AUGUSTE AGASSIZ: ENTREPRENEUR

Auguste Agassiz (1809–1877)



Saint-Imier in 1839



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WITH A VISION

uguste Agassiz was born in 1809, the son of a pastor in Saint-Imier, a town in the Jura region of Switzerland. His mother, Rose Mayor, was related to the aristocracy of nearby Neuchâtel. Agassiz chose a career in business and worked in the Fornachon bank, which belonged to his uncle. It was here that he made his first contact with the watch industry.

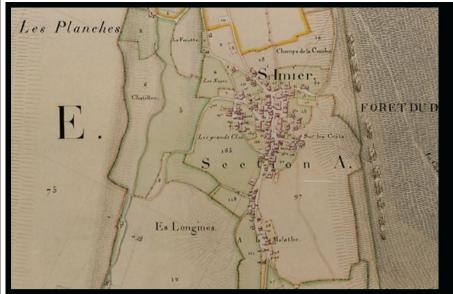
In 1832, at age 23, Agassiz became a partner in the comptoir, Raiguel Jeune & Cie., which was founded in Saint-Imier at the end of the 18th century by members of the Raiguel family. Henri Raiguel, son of one of the founders, formed a partnership in 1832 with his brother-in-law Florian Morel, who was already established in business,

and Agassiz, who had important contacts, thus assuring that the business would have a stable economic base.

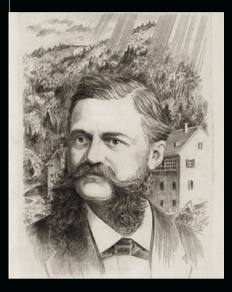
In the years that followed, Agassiz wrote watchmaking history. Raiguel retired in 1838 and Morel left the comptoir in 1846, leaving Agassiz as the sole proprietor. Business was good – especially due to the contacts in the United States that Agassiz had made in1845 and his business connections across the Atlantic through his mother's side of his family.

Lépine watches with cylinder escapements and keywind mechanisms formed a major part of watch production in comptoirs – typical of the watch industry in the Swiss Jura region at this time. Agassiz's decision to open his own workshop for assembling watches was an important first step away from the older, traditional methods in private homes.

Agassiz was an important citizen in the town of Saint-Imier, and even served as its mayor in 1846 and 1847. By 1850, poor health forced him to retire from the operations of his successful comptoir and move to Lausanne. Until his death in 1877, he remained a partner in the company that experienced its first major success under his direction. And he took special care to ensure that those who followed him would achieve success in the future.



Map of Saint-Imier representing "Es Longines" which means "the long meadows"



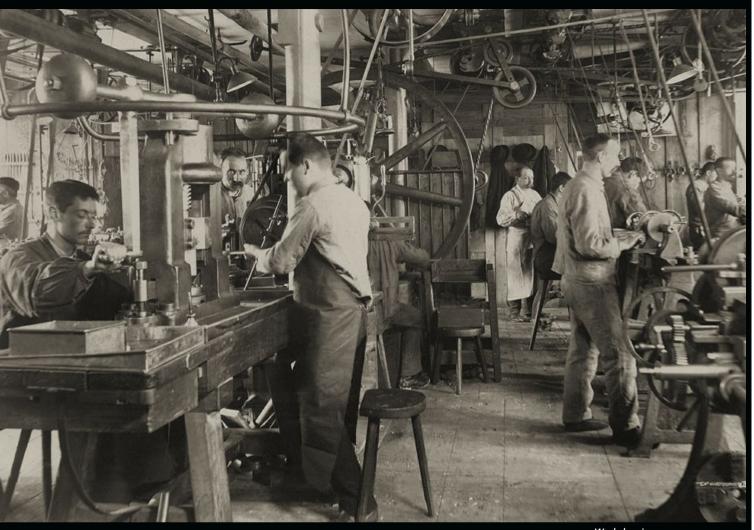
Ernest Francillon (1834-1900)

FOUNDER OF A MODERN WATCH BRAND

gassiz encouraged his nephew Ernest Francillon to join the Agassiz comptoir in 1852, beginning a new chapter in Swiss watchmaking history. Francillon was born in 1834 and had a business background like Agassiz's, but in 1853 he spent a year as an apprentice with a watchmaker in Môtiers, in the canton of Neuchâtel. In 1854, the young Francillon moved to Saint-Imier and from the time he arrived, he had a leadership role at the Agassiz comptoir. In 1862, Francillon took over the watchmaking direction, now known as "Ancienne Maison Auguste Agassiz, Ernest Francillon successeur."

From that point on, the new director made decisive changes within the company, always in close consultation with his uncle. Francillon promoted his uncle's approach, which was aimed at industrializing watch production. Francillon created the watch factory (which was begun under his uncle's direction) and shifted several more production processes to this central workshop. Francillon ensured that the factory was properly equipped. He hired workers with the intent of improving quality control, increasing output and making the production process more economical. One factor remained that continued to affect his financial outlook – there was

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Workshop in the Longines factory, 1900

only a small number of suppliers for watch movements, and these suppliers kept their prices high.

In 1866, Francillon took a dramatic step away from the traditional comptoir and towards the creation of a modern factory. He purchased two adjoining pieces of property to the south of Saint-Imier on the banks of a small river. The name of this area was known as "les longines," or "the long meadows." Construction of the factory began in 1867 where increasingly mechanized watch manufacturing began to take shape. It was also in 1867 that Francillon introduced the first brand name in the watch industry that was not based on a family name. The name "Longines" was now engraved on all the company's watches along with the winged hourglass, which is the oldest valid trademark in the registry of the World Intellectual Property Organization (WIPO).

Watches produced by the Longines factory also had more modern features than those produced by the comptoir. Francillon decided against using a winding key for his watches; starting in 1867, the company only produced watches with a crown-winding mechanism. In addition to the Lépine watches with a cylinder escapement, the factory also produced models with a Swiss lever escapement. The factory was also beginning to produce smaller ladies' watches with 12-, 13- and 14-lignes movements. During the first years in the new factory, Longines produced watches with in-house calibers as well as others with supplied movements. The factory produced approximately 15,000 watches each year during the first half of the 1870s.

JACQUES DAVID INDUSTRIALIZATION



Jacques David (1845–1912)

o help him in his pursuit of industrialization, Francillon found the perfect partner in Jacques David. David was born in Lausanne in 1845 but grew up in northern France. He was the son of a director of a textile mill that was completely mechanized and was familiar with industrial manufacturing processes since childhood. He studied engineering and completed his education at a watchmaking factory in Le Locle. In 1867, Francillon assigned him the organization of the new factory. David was responsible for the equipment and the functioning of the mechanical systems, which were powered by two turbines.

Francillon's re-structuring of watch production brought significant changes to Saint-Imier as well as to the entire region. In 1867, Longines employed 40 workers; by 1875, this number increased to 120. The workers and craftsmen who had previously worked in their own homes to produce watches now faced many changes. In the factory they worked specific hours and their work was inspected more closely. The division of labor was already a part of watch production for comptoirs, and these practices remained. However, work on a conveyor belt was rejected by Longines. Qualified young workers were important for the future of the watch factory, and Francillon and David were among the supporters of the watchmaking school that was founded in Saint-Imier in 1866.

America was important at this time both as a target marketplace and as a model for mechanized production methods. In 1873 and 1874, about 80 percent of all watches sold by Longines were sent to the United States. The company formed a partnership with the Wittnauer family who ran the New York branch until the mid-20th century.

The World's Fair was held in Philadelphia in 1876. David headed a Swiss delegation, the "Société intercantonale des industries du Jura," and what he saw in

Philadelphia made a deep impression on him. In the Machinery Hall he was introduced to the way American watch factories set up their mass production processes. David recognized that the Swiss watch industry with its current methods would not be able to remain competitive internationally. He admired the organization of the processes, the quality of the machines and the work ethic but he did not intend to transfer the American model directly to Switzerland. David wrote to Francillon: "We need a combined system that links the advantages of the Swiss workforce with the advantages of American machines."

It was against this background that the production processes at Longines began to be modernized in the 1880s and 1890s. David became a partner at Longines in 1880 and was responsible for these changes. Factory buildings were expanded to accommodate the growing number of employees. In the mid-1880s there were 400 employees and by 1900 there were 657. The two turbines that powered the modern industrial facility were no longer adequate, so Longines connected its operations to the community's new electricity network in 1896.

AND THE OF WATCHMAKING



Beginning in 1880, Longines was finally able to establish independence from its movement suppliers. The factory in Saint-Imier had begun manufacturing a series of calibers that were designed for mechanized production and achieved great success. Both chronographs and high-precision chronometers were produced, which were sought after as railroad watches in the U.S. and in

Under the direction of the watchmaker Alfred Pfister, Longines developed a nine-lignes movement that made it possible to create very fine and fashionable ladies' watches. The *manufacture* presented itself to the world as multifaceted, modern and capable. Francillon ensured the company's participation in the World's Fairs in Paris in 1878 and in Chicago in 1893.

Longines's sales networks became increasingly international, expanding to include Latin America. The U.S. market started to see Longines watches that were specifically tailored to Americans' tastes. Longines also supplied movements to their New York branch, where they were placed in American-made cases.





Top left: Poster advertising The Lindbergh Hour Angle Watch, 1931

> Top right: Advertisement from 1955

Re-edition of a 1957 Flagship model



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PROGRESS IN THE 20TH CENTURY

rancillon died in 1900, but he had carefully prepared his *manufacture* for the demands of the new century. Jacques David, Baptiste Savoye and Louis Gagnebin new management of the company. One of

formed the new management of the company. One of their first public successes was accreditation during chronometer testing by the Neuchâtel Observatory in 1905. This accomplishment demonstrated to the entire world that even machine-made, mass-produced movements were able to meet the strict demands of chronometer tests. At the same time, these movements were less expensive than hand-made ones and could be produced in much greater numbers.

When David died in 1912, Pfister became the technical director of Longines. Even though supply difficulties during World War I limited the work performed by Longines, peacetime between the wars was a time of expansion for the company, especially from a technical point of view. Pfister's direction brought the company numerous innovations in movement production. He was responsible for establishing a wide range of different calibers with the aim of meeting the greatest number of different customer demands. Longines also began to offer complications and to refine its movements.

The wristwatch finally conquered the market. By 1900, Longines and others had begun offering ladies' wristwatches. After World War I the wristwatch finally replaced the pocket watch for both men and women.

Longines continued to grow despite a drop in orders during World War I and during the Great Depression of the 1930s. By the first decade of the 20th century, the company had more than 1,000 employees. During this time,

Longines began to introduce a number of benefits for its workers – from a pension fund to child care.

Strong economic fluctuations in the first third of the 20th century presented some difficulties despite the company's many technical innovations, its increased streamlining of watch production under Pfister's leadership, and expanding internationalization. Still, Longines staged important publicity events during this period. The company supported exploratory expeditions and distinguished itself as a partner to some of the world's major aviation pioneers. Following Charles Lindbergh's spectacular crossing of the Atlantic in 1927, Longines developed the hour angle watch in 1931 in collaboration with the pilot. It soon became a legend among pilots' watches. Howard Hughes circled the globe in 1938 in an airplane whose cockpit was equipped with Longines instruments.

Beginning in 1936, Longines enjoyed constant growth due in great part to strong U.S. demand. This growth was only slightly affected by World War II and continued until 1970. Because of a reduction in the number of different calibers made by the company, Longines took further steps to streamline production. And while the company focused on the manufacturing of especially successful calibers, its special innovative spirit continued, leading to the creation of watches for marine navigation and for use in the tropics, in addition to its well-known pilots' watches.

In the 1940s, Pfister began developing a caliber with an automatic winding mechanism, and in 1946, Longines introduced the first automatic watch in the company's history. By the 1950s, the demand for automatic watches was enormous. In 1954, Longines launched its automatic model Conquest worldwide that quickly became a huge success among a young, forward-looking public.

TECHNICAL INNOVATIONS, NEW STRUCTURES AND NICOLAS G. HAYEK

ongines has been involved in timing sporting events since the very beginning of the 20th century. In 1954, the company designed and built a chronometer with a quartz movement for timing sporting events. (It happened to be as big as a suitcase.) The precision of this watch was astonishing, capable of measuring the time to 1/100 of a second. Making quartz technology small enough for personal use seemed a promising goal and Longines worked for more than 10 years on miniaturizing the quartz watch. In 1966, the company

presented a huge sensation: a pocket watch with a quartz movement that immediately won first prize from the Neuchâtel Observatory. Longines introduced another more "user-friendly" version in 1969: a wristwatch with a quartz movement. The "Ultra-Quarz" appeared at the same time as the quartz watches produced by the Japanese company Seiko. Even though quartz technology has generally been understood as a Japanese accomplishment, Longines can show that Switzerland produced groundbreaking work during the pioneering period of the quartz watch. However, it took several years until the Ultra-Quarz was ready for mass production and by that time Seiko already had its own quartz watches on the market.

When Longines presented the first quartz wristwatch with a liquid crystal display in 1972, the company counted it as another milestone in quartz technology development. Longines also continued to develop mechanical watch movements with continued success, especially with its automatic watches.

But not all was well in the Swiss watch industry. Companies in the watch sector began to merge as a way to better meet the demands of the global market. Longines became a corporation in 1965, and in 1971, the company became a part of ASUAG, which also owned Ébauches SA, which later became ETA.

Although Longines continued to achieve satisfactory sales numbers and entered important Asian markets, the Swiss watch industry began to experience difficulties. The two largest groups in the industry, ASUAG and SSIH, were experiencing massive financial pressures. The groups depended on Swiss banks who turned to the corporate consultant Nicolas G. Hayek (1928–2010). In 1982, Hayek submitted a report in which he recommended a merger of the two groups, and in 1983, his rec-







Top: The late Swatch Group chairman, Nicolas G. Hayek

Right: Walter von Känel, Longines's president since 1988

ommendation became a reality. The Société suisse de microélectronique et d'horlogerie (SMH) was created.

Hayek initiated a series of streamlining measures so the group could compete at new and higher levels. Among other things, he decided to transfer the production of watch movements completely to ETA. ETA continues to produce watch movements for Longines and to develop important innovations exclusively for Longines.

Hayek's efforts were rewarded with immense success. In 1998, SMH was renamed The Swatch Group. It has grown to become one of the watch industry's most important players today, with Longines as one of its strongest brands. The president of the company since 1988 has been Walter von Känel who was born in Germany in 1941, grew up in Saint-Imier, and has been a part of Longines since 1969.



Longines UltraQuartz watch from 1969



Poster for the "Elegance is an attitude" advertising campaign with Audrey Hepburn, 1999



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The Artistic Gymnastics Chinese Men's team, Longines Ambassadors of Elegance and world champions at the Artistic Gymnastics World Championships 2011 in Tokyo

A GLOBAL BRAND ENTERS THE 21ST CENTURY

he 21st century began under promising circumstances. Longines in the 1990s expanded its international presence, and the decision to take over its own sales in every

region of the world has allowed Longines become a significant global player.

The 1990s also gave Longines the opportunity to carry out an intensive review of its own company history. Its goal – to create updated watches based on classical Longines models of the past – has led to the creation of two extremely successful watch collections: La Grande Classique de Longines and the Longines DolceVita, which both emerged during this decade.

Longines entered the 21st century with successful collections, a strong presence in international markets and the secure foundation of an impressive history. The company promotes elegance and performance with a special emphasis on sports, rooted in its long and ongoing history in timing sporting events. Elegance remains a constant at Longines thanks to its self-reliance and its avoidance of new or short-lived trends – instead choosing designs of timeless elegance. This has resulted in watches

whose balanced and harmonious styles easily withstand the tests of time and changing fashion. The Longines slogan "Elegance is an attitude" can be attributed to the wearer as well as to the brand itself.

Fortunately, the elegance that Longines embodies is truly more a question of style than of price. In the world of high-quality Swiss watches Longines remains comfortably within reach without compromising quality along the way. Even though Longines no longer produces its own watch movements using movements from ETA instead, who manufactures (partly exclusive) movements for Longines, this has secured a position for Longines among fans of mechanical watches. Plus, the number of mechanical watches made by Longines keeps growing. Since 2009, mechanical watches make up more than 50 percent of the collection without greatly affecting the price structure of the watches.

Longines survived the worldwide economic crisis of 2008–09 unscathed. The brand was even positioned well enough to increase its sales during this critical period and continues to grow – with a gigantic market in China, in its own Flagship stores, and a reliance on the values it has cultivated for 180 years.





The name Longines, which translates as "LONG, NARROW **MEADOWS**," refers to pastureland in the community of Saint-Imier, which is situated beside the little Suze River in Switzerland's Jura region. Ever since the 19th century, Longines has created masterpieces here that have decisively influenced the evolution of watchmaking.

BY GISBERT L. BRUNNER



First Chronograph Movement

CALIBER 20H

The first Longines chronographs were developed by the watchmaker Henry Alfred Lugrin, who was born in 1848 and became one of the most important designers of modern timepieces for the measurement of brief intervals. When Lugrin was 20 years old, he emigrated to the United States and found his first employment with Eugene Robert, who ran a sales agency for watches in New York. In 1876 Lugrin introduced a chronograph mechanism that could be easily mounted on existing movements with half or three-quarters plates. Longines was impressed by his simple but ingenious construction, so it acquired a license for the patented mechanism, which it then mounted on its new handwound caliber. The resulting chronograph Caliber 20H was ready for use in 1878. The central elapsed-seconds hand could be started, stopped and returned to zero via the crown, but this chronograph did not yet have an elapsed-minutes counter.

1913

Stopwatch on the Wrist

CALIBER 13.33Z

A wristwatch containing handwound Caliber 13.33Z is a must for collectors of fine *manufacture* chronographs. Longines premiered this beautiful movement in 1913, relatively early compared to other brands. The caliber's alphanumerical designation referred to its diameter (13 *lignes* or 29 millimeters). The platform for this monopusher chronograph was a hand-wound movement that had been designed several years previously. The appeal of the

distinctively styled chronograph mechanism, with pusher on the crown, column-wheel control, gear coupling and jumping 30minute counter, derived from its clear architecture and finely crafted steel components. The large, bimetallic, screw balance completed 18,000 semi-oscillations per hour. The steel hairspring with Breguet terminal curve was a matter of honor, but no one even dreamt of shock absorption at this early date. Longines continued to manufacture this movement with great success until 1936. Of course, improvements were made over the years in Caliber 13.33Z, and its manufacturing methods, whenever these were technically necessary and advisable.





The Exact Second

THE LONGINES WEEMS SECOND-SETTING WATCH

Born in Tennessee in 1889, Philip van Horn Weems became fascinated with navigation during his years at the naval academy. Weems developed the basis for an innovative watch with a dial designed to simplify navigational tasks. Weems's innovation debuted in 1927, the same year that 25-year-old aviator Charles A. Lindbergh first flew across the Atlantic Ocean from west to east. Weems's watch could be precisely synchronized with a radiotransmitted time signal without influencing the running of its movement and motion of its hands, thanks to a rotatable seconds scale in the center of the dial. When the wearer heard a time signal, he twisted the onion-shaped crown to align the zero point with the position of the seconds hand at that moment. The time could accordingly be set with extreme precision, even if the seconds hand didn't happen to be in a vertical orientation. This idea impressed Longines, which decided to manufacture the Weems watch in several different versions. The system was first granted patent protection in 1929.





1931

Airborne Assistant

THE LINDBERGH **HOUR-ANGLE WATCH**

Lindbergh taxied his "Spirit of St. Louis" down an airstrip in New York and took to the air on May 20, 1927. When he landed at Le Bourget near Paris, he was not only 33 hours and 30 minutes older, but also \$25,000 wealthier and had gained a great deal of knowledge about long-haul aviation. The pilot summarized his insights in a series of sketches and asked Longines to competently transform his ideas, some of which were based on Philip van Horn Weems's system, into tangible ticking reality. When the resulting wristwatch debuted in 1931, its appearance and functionality caused a furor. This extremely large timepiece was a whopping 47.5 millimeters in diameter, could be worn over a pilot's coveralls and could be easily operated while wearing gloves. A rotatable dial for the seconds and a rotatable bezel, both of which were calibrated in angular degrees, provided long-haul pilots with valuable assistance when calculating longitude. Handwound Caliber 37.9, which soon replaced a different Longines caliber as the movement inside the Hour-Angle Watch, was equipped with an indirect central seconds hand. The duo of bimetallic, self-compensating balance and steel hairspring (either flat or with a Breguet curve) completed 18,000 semi-oscillations per hour.

One Watch, Two Dials

DUO DIAL

The Great Depression in the early 1930s took a toll on Longines, where workers were obliged to accept a 20- percent wage reduction, higherranking employees' salaries were slashed by 30 percent and executives' paychecks shrank by fully 40 percent. In this crisis-fraught era, Longines put its hopes in a new product designed to combine functionality and elegance. It had become fashionable in the 1930s for wristwatches to display the hours and minutes in the upper portion, and the seconds in the lower part, of rectangular dials, but Longines wanted to do more than merely follow the decrees of fashion. The brand put the crowning touch on this type of display by creating a case with two separate windows. This not only made a new impression, but also reduced the danger of breakage for the fragile crystals. Of course, a wristwatch of this sort called for a special movement. The work of developing the elongated, rectangular (26.6 x 15.5 mm), handwound Caliber 9.32 began early in 1932. A shock-absorption system safeguarded the pivots of the balance staff against breakage. The large screw balance and self-compensating Breguet hairspring oscillated at a frequency of 18,000 vph. The rectangular case, with engraved indices around the windows, was available in various materials. Longines targeted as potential customers for this watch physicians, nurses, scientists and everyone else who needed a watch that clearly displayed the passing seconds. Alongside this avant-garde model, there was also a conventional open version.





Quick Return

STOP SECONDE

An elapsed-seconds hand that can be started, stopped and returned to zero independently of the ordinary time display is among the most salient features of every chronograph. Whether this hand sweeps its circles from the center of the main dial or across the plane of a subdial matters little, and the presence or absence of counters for elapsed minutes and elapsed hours is also unimportant. Less complex than the other chronographs, which Longines produced in great variety, was Caliber 12.68Z Stop, a 17-jewel movement that the brand launched in 1938. The number "12" in this caliber's name stood for its diameter: 12 lignes or 27 millimeters. A button at 2 o'clock triggered the central elapsed-seconds hand to quickly return to its zero at the user's command. This quick return, now known as a flyback function, was accomplished by connecting the trigger button to a zeroreturn lever on the classic zero-return heart of the central elapsed-seconds hand. Horizontal coupling created the connection to the fourth wheel. The chronograph could not be stopped; its user had to be satisfied with restarting it at the correct time. A version of the caliber was also available with a simple stop-seconds function; another, with an additional 60-minute counter (also from the center; see illustration), debuted in 1939. The Stop Seconde was available in elegant and sporty models.



Star-Writer

SIDEROGRAPH

The Hour-Angle Watch that Lindbergh had helped to develop was an ideal navigational aid, but the specialists in Longines's development department weren't willing to rest on their laurels, so they went on to launch the Siderograph in 1939. Available as a deck watch, pocketwatch or wristwatch, this timepiece had a red hour hand, a black minutes hand and two blue seconds hands as part of a splitseconds mechanism. Color-coded scales that matched the hands indicated angles in degrees and minutes of arc; the dial was wreathed by a functional, rotatable hour-angle bezel. The watchmakers finely adjusted the caliber according to sidereal time. The user could easily determine his or her geographic coordinates with the aid of a radio time signal and a table listing the current positions of celestial bodies, known as an ephemeris.



1938

Lap Times

SPLIT-SECONDS CHRONOGRAPH

These 54-mm pocketwatches, which could conveniently stop and show lap times, were produced in two versions: one had a large screw balance and could measure elapsed intervals to the nearest 1/5 second; the other had a significantly smaller balance and could time intervals to the nearest 1/10 second. The base movement for the newly developed stopwatch was a veteran: first designed and built in 1908, it had performed outstandingly at chronometer competitions in Neuchâtel, Kew-Teddington and Washington.



Chronograph with Hour Counter

CALIBER 13ZN

Good is the enemy of better, and nowhere is this adage more true than when it's applied to Longines's movements. In 1936, the company began development of a new model to follow in the footsteps of chronograph Caliber 13.33, which after 23 years in production was still successful but had become too expensive. Various devices for Caliber 13ZN had already been completed by the autumn of 1935, so models containing the new movement could be launched at the peak of the chronograph's popularity. A great advantage for Longines

was that only a few of the brand's competitors had manufacture calibers of this type at their disposal. Available with either one push-piece or two, Caliber 13ZN was six millimeters thick and had a fly-back mechanism, a column wheel, as well as a screw balance with a self-compensating Brequet hairspring that oscillated at a pace of 2.5 hertz, and a 30minute counter that advanced at half-minute intervals. Hourcounters became fashionable in the early 1940s, so Longines's technicians created a modified version of Caliber 13ZN, first marketed in 1942, which had its 12-hour counter at 3 o'clock. Longines also enhanced the legibility of the 60-minute counter by repositioning it in the dial's center. Like its forebear, this movement was, unfortunately, too expensive, so Longines soon began developing a successor: Caliber 30CH celebrated its premiere as the brand's last chronograph movement for wristwatches in 1947.





First Automatic

CALIBER 22A

There were very few rotor-wound calibers for wristwatches in the 1940s. To avoid infringing on patent protection, many watch brands hurriedly created hammer-wound movements with buffers to brake the rotors, but Longines opted not to pursue this route. Instead, the company concentrated on a mechanism with an oscillating weight that could swing freely. Of course, Longines, too, had to contend with the obstacles presented by Swiss patent law. The way to overcome them was with a system in which the rotor wound the mainspring in both directions of rotation. This bidirectional automatic winding system was integrated in Caliber 22A: launched in 1945, it had an indirect central seconds hand and amassed 36 hours of power reserve. Its geometry is essentially based on Caliber 27, which debuted in 1944. To achieve an acceptable overall size for Caliber 22 A, Longines had to miniaturize the basis, onto which the brand mounted the self-winding subassembly with a patented click changer. Right from the start, the watchmakers had detected a potential weakness: the relatively thin staff on which the oscillating weight was borne. To counteract possible breakage, a heavy metal segment was elastically affixed to the central rotor's disk. The entire device couldn't be very flat, but an overall height of 5.65 millimeters was feasible, and acceptable at the time.

Focus on Power Reserve

CONQUEST

Even 30 years after the debut of the first self-winding wristwatches, many potential customers were still skeptical about them. Manufacturers sought to dispel their skepticism by equipping watches with power-reserve displays. Longines, too, added this useful indicator to its newly developed 290 family of movements. Self-winding Caliber 290, which was first used in the Conquest family of watches, was 26 millimeters in diameter and had 24 functional jewels, a direct central seconds hand and a Glucydur balance that completed 19,800 semi-oscillations per hour. The special feature of sixmm-thick Caliber 294 was that its power-reserve display had a centrally positioned disk onto which a hand was printed (see illustration). A central rotor wound the mainspring in both its directions of rotation via a ratchet wheel changer. If the watch was worn regularly, it would amass a 45hour power reserve, the level of which was shown on the indicator. Unlike base Caliber 290, Calibers 291, 292, 293, and 294 each had a date display at 12 o'clock.



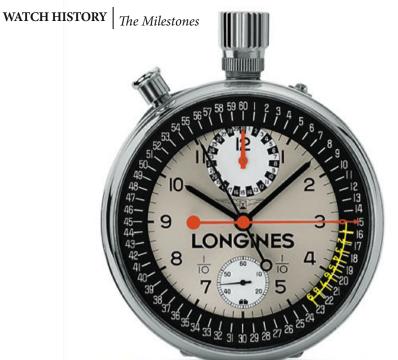
1960

New Movement **Family**

CALIBER 340

Longines offered three top lines of automatic watches: Admiral, Conquest and Flagship. The brand-new 340 family of calibers debuted in the very slim Flagship in 1960. Its distinction lay in an offcenter, ball-borne, heavy metal rotor with a complete wreath of teeth. A patented satellite wheel changer tightened the mainspring for bidirectional winding. Longines integrated the automatic module into the 4.45-mm-thick movement. The Glucydur ring balance vibrated at a pace of 19,800 semi-oscillations each hour. Calibers 340, 341, 342, 343 and 345 each had a directly propelled central seconds hand; minor technical improvements were incorporated into versions 342, 343 and 345. Calibers 350, 351, 352, 353 and 355 did not have seconds hands. A date display in a window distinguished versions 341, 343, 345, 351, 353 and 355. The base movement (Caliber 340) had 243 components, which were manufactured by machine in a 960-step process. This family of calibers was used in the very classical Flagship line in 1960.





Better Legibility

CALIBER 262 VERNIER

Measuring time at sporting events was one of Longines's specialties. A major advance in the accurate measurement of brief intervals came in the 1960s. The seconds scale on an analog dial offers only a limited amount of space between neighboring strokes, so Longines attached a so-called "Vernier" scale to the tip of the catch-up hand of a split-seconds chronograph with 1/10-second accuracy. The added component was a modified version of a device that could determine tenths of a whole and that had originally been invented in the 16th century by the Portuguese mathematician Nunes, whose name was latinized as Nonius. Reading the scale is very simple: after the catch-up hand has been halted, the user

only needs to see which of the 10 Nonius digits is tangent to a stroke on the 60-second scale, which runs all the way around the periphery of the dial. This digit corresponds to the number of 1/10-seconds that should be added to the last full second. A sporty wristwatch chronograph with a display for fractions of a second was added in 1964. The function worked because Longines had filled the tonneau-shaped steel case with hand-wound Caliber Valjoux 72, which has a balance that oscillates at a pace of 2.5 hertz. This means that the central seconds hand progresses in 1/5-second increments, and that no intervening 1/10-seconds can be measured.

1967

Faster Frequency

ULTRA-CHRON

Serially manufactured watch movements, including those made by Longines, had achieved a high level of quality by the mid-1960s. Longines's watches had already run quite precisely, but enhanced precision made for a welcome new selling point. This improvement could only be lastingly achieved by increasing the balance's frequency, but a more quickly oscillating balance led to two problems in a mechanical wristwatch. A faster balance consumed more energy. Furthermore, greater rotational speeds and stronger centrifugal forces caused difficulties with the lubrication. Undaunted by these challenges, the specialists in Longines's development department applied themselves to the task of designing a movement with a faster-oscillating balance. The special feature of automatic Caliber 430, which debuted in 1967, s that its balance's speed was doubled from 2.5 to 5 hertz, which corresponds to a pace of 36,000 hourly semi-oscillations. The movement was equipped with a central ballborne rotor that could wind the mainspring in both directions of rotation thanks to a patented satellitewheel-changer gearing mechanism. After it was fully wound, the caliber would continue to run for 36 hours. The base version had a central seconds hand positioned outside the flow of force. The version with a date display shown in a window was designated as Caliber 431 (see illustration). In keeping with the speedy frequency of the balance, Longines used the name "Ultra-Chron" for wristwatches that contained these movements.





Electronically Powered

ULTRA-QUARTZ

It was a matter of honor for Longines to participate in the collaborative development of quartz Caliber Beta 21 by the Centre Électronique Horloger S.A. (CEH). At the same time, the company was also working on a caliber of its own, with which Longines hoped to win the competition for the world's first "cybernetic watch." The daring project was successful: in anticipation of a chronometric sensation, some 150 journalists from throughout Europe responded to an invitation to gather in Geneva in the late afternoon of August 20, 1969. After greeting his guests, general director Frédéric Ahles quickly got down to business and announced that Longines had developed the first quartz wristwatch that was ready for serial production. The miniaturization of Caliber 6512 was partly achieved through the use of ultramodern microchips. The little quartz oscillator vibrated at a frequency of 9,350 hertz, quite fast by the standards of the late 1960s. (The CEH's engineers had chosen a frequency of 8,192 hertz.) An innovative vibration motor with a step frequency of 170 hertz served the time display. The rectangular movement measured 31.8 by 27.5 millimeters and was marketed under the name "Ultra-Quartz."

1972

Innovative Display

LCD WRISTWATCH

Hamilton premiered the Pulsar, a quartz watch with light-emitting diodes (LEDs), in 1970. But the display consumed so much energy that the indicator lit up only when the wearer pressed a button, and the illumination lasted for a maximum of just 1.25 seconds. Longines addressed this energyrelated problem with its 1972 introduction of a display that used liquid crystals rather than LEDs. The LCDs used 30,000 times less electricity and thus didn't need to switch off to conserve power. In addition to the hours (in 12-hour or 24-hour format) and the minutes, this model also showed the date. The round movement used a quartz crystal that oscillated at a frequency of 32,768 hertz, the frequency still in use today. Even if this watch was kept running all year, its two mercury batteries provided enough current to keep it running even longer. This outstanding technical achievement was recognized when Longines was awarded the American technology prize "I.R. 100" in 1972.



Response to the Quartz Crisis

CALIBER L990

It took courage to launch a new automatic caliber in 1977. After two years of research and development work, Longines presented the 'E' caliber family, which was later renamed L990. Just 2.95 millimeters thick, it was the world's slimmest movement with two barrels and automatic winding via a central rotor. Its most notable characteristic was a pair of serially arranged barrels that had made their debut in automatic Caliber L890 in 1975. The energy and rotational speeds of the two barrels combined to produce a 44hour power reserve. The comparatively quickly turning mainsprings had lower torques: this significantly reduced the force exerted on the gear train while at the same time achieving superior performance.

This solution made it possible to lower the transmission ratio of the train between the rotor and the barrels, while also enabling the engineers to eliminate one gear and to reduce both the weight and the thickness of the ball-borne rotor. Thanks to the simplicity of its architecture, the entire self-winding assembly could be positioned below the barrel bridge as an integral component of the movement. There were four caliber versions: L990 with central seconds and date display; L992 with central seconds but without a date display; L993 with date display but without a secondhand; and L994 with hands only for hours and minutes. Breguet, which like Longines is part of the Swatch Group, now owns rights of this caliber, to which it has given a silicon escapement and the name "591 A."

1979

Paper-Thin

GOLDEN LEAF

Japanese watch companies seized the lead from the Swiss in the development of thin electronic movements in 1978. Longines, a pioneer in the world of quartz watches, refused to take this lying down, so the brand joined with its sister company ETA and other members of the Allgemeine Schweizerische Uhren AG (ASUAG) to launch an ambitious project called "Delirium." The goal was not only to break records, but also to overcome

the severe crisis that faced the Swiss watch indus-

try at the time. Longines's management celebrated a spectacular success on January 12, 1979, when it introduced the world's slimmest quartz wristwatch with an analog time display and an overall height of just 1.98 millimeters. The brand launched this timepiece under the appealing name, Golden Leaf. The technicians who created its movement, Caliber L795.2, had radically departed from conventional principles of construction. The case's back doubled as its base plate. After assembling the movement and inserting the hands, watchmakers needed only to install the bezel and the crystal above the dial. The hands could be reset by pressing a little button in the back of the slender, golden case.





Traditionally Slim

AGASSIZ

Since 1982 the Agassiz watch line has prioritized skillful reduction to the bare essentials and single-minded concentration on the heart of the subject. In this context, minimalism expresses itself through two hands that circle above a cleanly designed dial. The concept of minimalistic design had already inspired the brand's founder, Auguste Agassiz. The elimination of all inessentials also included reducing the constructive height to a bare minimum. That had already been done with the Golden Leaf model in 1979, but that watch had cost more than many of the brand's fans would be willing to spend. With this in mind, the Agassiz and its 1.95-mm-thick quartz Caliber L970 represented a skillful compromise. Case and caliber combined to produce a watch with a height of slightly less than three millimeters. The Agassiz served as the basis for the subsequent development of the successful La Grande Classique line.

1984

Enhanced Precision

CONQUEST V.H.P.

Another quantum leap in the world of electronic time measurement occurred in 1984. Quartz watches in those days typically deviated from perfect timekeeping by approximately two minutes per year, but Longines, which had always been fanatical about precision, wasn't satisfied. The management challenged the engineers to eliminate these inaccuracies. Temperature variation was soon identified as the source of the imprecision: the company had been concerned about this since the debut of the first portable quartz timepiece in 1954. Man is a warm-blooded animal, so the vibrating quartz inside an electronic wristwatch works in an environment with a temperature of approximately 98.6 degrees Fahrenheit. But when the wearer takes off the watch and places it on a desk or bedside table, the ambient temperature sinks to about 68 F. The solution turned out to be simple: in a similar concept to mechanical rate regulators like bimetallic balances or self-compensating pendulums, Longines developed an extraordinarily sensitive, high-frequency, quartz thermometer. Its job was to measure the ambient temperature and then collaborate with a preprogrammed circuit to adjust the frequency of the quartz oscillator to suit the temperature. The caliber equipped with this device was given the name L276VHP: the final three letters stand for "very high precision." The Conquest V.H.P. that contained it performed with record-breaking accuracy, deviating from perfection by a mere one minute every five years, or by 0.02 seconds per day. The regulating program itself remained in the watch's memory even after the batteries were changed, a simple task that was only required every five years.



A Watch for Our Nearest Star

EPHEMERIS OF THE SUN

After a brief hiatus from mechanical timepieces, Longines returned to making them in 1987. The first was a new, limited edition of the legendary Lindbergh Hour-Angle Watch containing the slim, self-winding Caliber L990. The brand presented a new development two years later: beneath its enameled dial with five little windows, the strictly limited and individually numbered "Ephemeris of the Sun" model had a complex mechanism to indicate the times of sunrise and sunset and to display the declination of the sun. In other words, it showed the daily status of an annual phenomenon. The evolution of this cycle was shown by a curve in windows. The date and the hours served as coordinates. In this sense, the times of sunrise and sunset in the two windows at 12 o'clock related to the month at 9 o'clock and the date at 3 o'clock. This watch's owner could read the sun's declination in a window at 6 o'clock. Furthermore, the equation of time could be calculated with the aid of a rotatable bezel. Unintentional repositioning of the bezel was prevented by a safety mechanism located between the lower pair of lugs on the stainless steel case. The watch was animated by automatic Caliber L640, which was based on an ETA 2892. One thousand watches were manufactured in stainless steel; 200 others were produced with gold cases.



1995

Everlasting

V.H.P. PERPETUAL CALENDAR CONQUEST

Wristwatches with simple calendars suffer from a decisive disadvantage: because of the unequal lengths of the months, the date display is never correct for more than 92 consecutive days, from July 1st to September 30th, after which the date must be changed manually. Longines eliminated the need to manually change the date in months with fewer than 31 days when it premiered the top model in its sportily elegant Conquest line in 1995. A specially programmed chip "knew" the lengths of all 12 months. It ensured, for example, that the date display jumped from February 28th to March 1st in ordinary years and that the calendar didn't forget February 29th in leap years. The trailblazing synthesis was christened with the name V.H.P. Perpetual Calendar Conquest. As the star of the year 1995, it combined the ultra-precise, temperature-compensating, quartz movement of the Conquest V.H.P. from 1984 with an electronic perpetual calendar. Also onboard: uncomplicated switching from one time zone to another, and from summer time to winter time. No fewer than 14,700 transistors were needed to accomplish all this, but they were tightly packed into a microchip with a surface area of less than 19.5 square millimeters.

Dancing Hands

THE LONGINES MASTER **COLLECTION RETROGRADE**

A brand that's 175 years old and that has been continually present on the market throughout this entire time has plenty of reasons to celebrate, which is exactly what Longines did in 2007, when the company gave itself a wonderful birthday present: a watch containing Longines's own exclusively developed automatic Caliber L698. The engineers based their work on the opulent ETA-Valgranges A07 with a balance that oscillates at a pace of four hertz and an oscillating weight borne on ball bearings. Perhaps the most sophisticated feature of this 9-mm-thick movement, which winds itself via an unidirectionally winding rotor, lies in its additional indicators, all of which are retrograde. The hands for the day of the week, the

date, the seconds and the time in a second time zone each progress along arcshaped scales. When each one reaches the end of its longer or shorter arc, it quickly jumps back to its starting position. Longines offers this wristwatch in steel or rose-gold cases and in two different diameters: 41 and 44 millimeters. There's also a version containing Caliber L697. This model has a power-reserve display instead of a retrograde seconds hand at 6 o'clock; the seconds hand sweeps its circles from the center of the dial. Sleek lines and uncommonly meticulous craftsmanship contribute to this watch's elegance, which is further enhanced by polished indicators, an embossed dial and blued steel hands.





Exclusive Caliber

THE LONGINES COLUMN-WHEEL **CHRONOGRAPH**

Except for its provenance and the use of a reliable oscillating-pinion coupling, Caliber A08.231 has little in common with familiar automatic Chronographs 7750 or A07.111 from ETA, the ébauche specialist. The highlight of this movement is the newly developed, fully integrated chronograph mechanism with a classical column wheel. Compared to a coulisse lever system for controlling a chronograph's functions, this classical component offers the advantage of reduced wear because six columns share the burden of the various switching sequences. The stress of switching, on the other hand, rests on only two points. Forces transferred from the push-pieces are also more evenly distributed through the use of a column wheel. Thanks to the absence of shearing forces, the switching sequences are noticeably smoother and tactilely more pleasant when the "swinging" coulisse moves forward and back. The two-spoke zero-return hammers for the chronograph's elapsed-seconds hand and elapsed-minutes hand are self-adjusting and moveably mounted on the zero-return lever. Commissioned by Longines, ETA's technicians designed a newly conceived switching mechanism with short pathways, the smallest possible number of components and a high degree of userfriendliness. The push-pieces act relatively directly on the mechanisms that start the chronograph, stop it and return its counters to zero.







Longines offers a wide-ranging palette of masculine and feminine timepieces that reflect today's modern aesthetics and technical demands. Such variety typifies the following **SELECTION OF LONGINES WATCHES** that span the range from elegant to sporty. And as a high point in its long history and to celebrate its 180-year anniversary the brand presents The Longines Saint-Imier Collection.

BY JULIA KNAUT

ELEGANCE



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ELEGANCE

The three different Longines watch collections – Longines DolceVita, Longines PrimaLuna and La Grande Classique de Longines represent elegance like no other. Whether its typical shape is round, rectangular or extremely thin, each collection represents its own **UNIQUE FACET** of this exciting watch brand and combines high style and understatement for watches that are always in fashion.

LONGINES DOLCEVITA

Since 1997, the ladies' collection Longines DolceVita has set the standard for classic and harmonic design. These feminine timepieces have a fresh look with a smooth combination of strong lines and delicate curves.

Quartz, Cal. L178, stainless steel and rose gold with diamonds, 19.8 x 24.5 mm, stainlesssteel and rose-gold bracelet, L5.155.5.19.7



LONGINES PRIMALUNA

The soft silhouette of a changing moon enhances the Longines PrimaLuna collection. Round cases, bright dials and sparkling diamonds give the impression of a heavenly body coming down to Earth. The watches are available in four different sizes.

> Ouartz, Cal. L129. stainless steel and rose gold with diamonds, 30 mm, stainless-steel and rose-gold bracelet, L8.112.5.79.6



WATCHMAKING



Automatic, Cal. L650. chronograph, stainless steel. 34.9 x 40 mm. alligator strap, L2.643.4.73.4



Automatic, Cal. L595. stainless steel with diamonds, 26 x 30.6 mm, alligator strap, L2.142.0.70.2

LONGINES EVIDENZA

Men's and ladies' watches in the Longines evidenza collection are remarkable for the melding of rectangular and curving shapes. Longines built the first tonneau watch as early as 1911 - and today these models are available in classic gold and stainless-steel versions. many with diamonds.

> Automatic, Cal. L688.2, chronograph, stainless steel and rose gold, 41 mm, stainless-steel and rose-gold bracelet, L2.752.5.72.7



THE LONGINES **SAINT-IMIER COLLECTION**

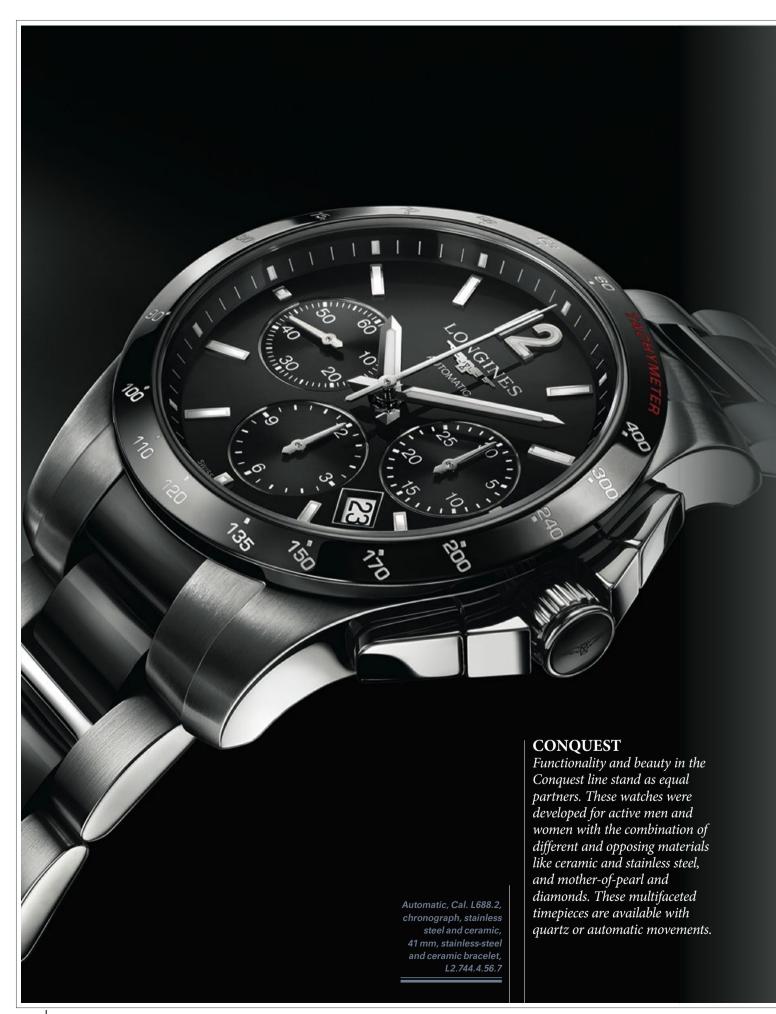
Longines and its Saint-Imier Collection prove that classic and modern design can come together in perfect harmony. This line includes a three-hand model with date, as well as a chronograph and a new variation of the Retrograde. Four retro displays, a day-night indicator and moon phase grace the dial. Special movements exclusively manufactured for Longines power the chronograph and Retrograde models.

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TRADITION

Longines can look back on 180 years of history filled with a great number of technical innovations. The collections that make up the *WATCHMAKING TRADITION LINE* clearly refer to this history with a notable emphasis on mechanics of the different models. The spectrum encompasses three-hand watches and various sophistications.



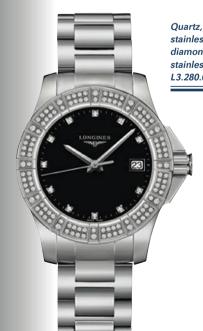


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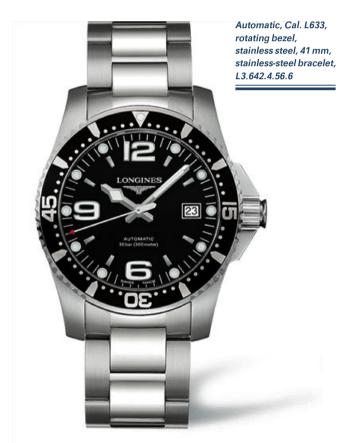
Watches in the Sport Collection easily exemplify **DYNAMIC ELEGANCE** and make a great impression from both a technical and aesthetic standpoint. It's what makes the timepiece just as appropriate to wear with a wet suit or evening attire.



Quartz, Cal. L263, stainless steel and ceramic with diamonds, 35 mm, stainless-steel and ceramic bracelet, L3.281.0.87.7



Quartz, Cal. L263, stainless steel with diamonds, 35 mm, stainless-steel bracelet, L3.280.0.57.6



HYDROCONQUEST

The HydroConquest line has a functional design for use in aquatic environments. These specially designed models have water-resistant cases (up to 30 bar), a unidirectional rotating bezel and divers' extension piece. Fans of sports watches can select from a variety of dials and cases.

HERITAGE

Timepieces in the Heritage collection relive *MILESTONES* from the 180-year history of this technically innovative company. Among its newest developments are functional watches for aviation as well as for use on land or sea. These new editions closely mirror their historical predecessors.



CONQUEST HERITAGE

The Conquest Heritage is based on an original and historically inspired design. Applied wedgeshaped markers and clearly structured dials support an image of timelessness and reliability.

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FLAGSHIP HERITAGE

Purists will appreciate the Flagship Heritage with a dial designed to facilitate function and legibility. Its narrow bezel and retro lettering give it historical appeal.

Automatic, Cal. L615, stainless steel, 38.5 mm, alligator strap, L4.795.4.78.2





THE LONGINES COLUMN-WHEEL CHRONOGRAPH RECORD

This sporty chronograph combines technical expertise with 1960s style. It is equipped with a column-wheel mechanism, striking red stop-seconds hand and nonius track that recalls a mechanical stopwatch developed by Longines in 1966.

Automatic, Cal. 688.2, stainless steel, 41 mm, alligator strap, L4.754.4.72.4

THE LONGINES LEGEND DIVER WATCH

As its name suggests, the Legend Diver Watch traces its beginnings to an earlier Longines divers' watch from 1960. An inner rotating bezel which is adjustable with a second crown and a synthetic strap make it suitable for underwater use. A dark dial with luminous markers ensures superior legibility.

Automatic, Cal. L633, inner rotating bezel, stainless steel, 42 mm, synthetic strap, L3.674.4.50.0



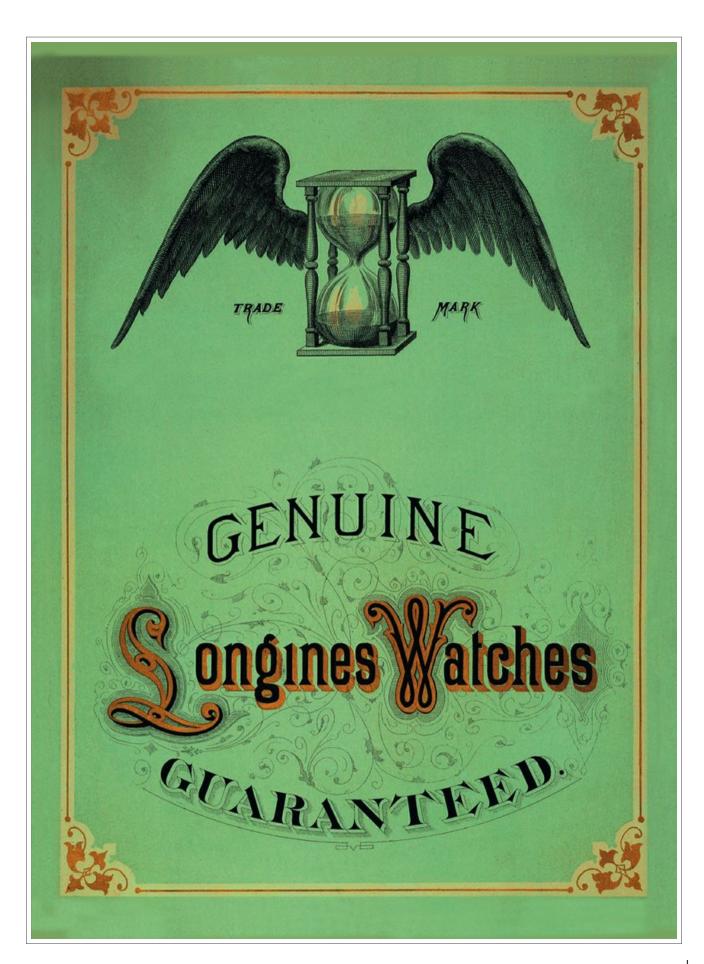
WINGED | NEW YORK | WINGED | W

BY MARIA-BETTINA EICH

The world's oldest logo still in use today is also a milestone in marketing history: The **WINGED HOURGLASS** from Longines is over 120 years old.



The Longines logo is easily recognizable on the balance bridge or in an advertisement.







Longines began using the winged hourglass in 1867 (bottom) but did not register it until 1889 (center). The stylized hourglass, similar to the one used today, was created in 1942 (top).

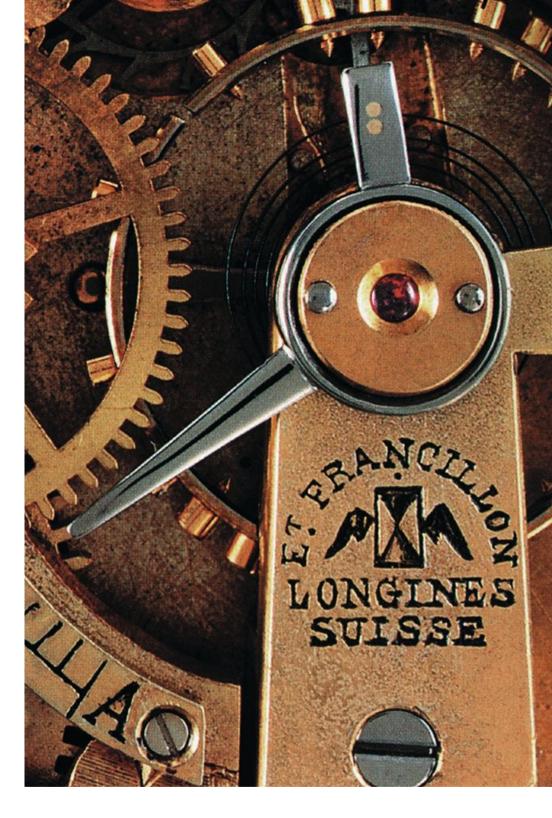
ogos have become a prominent feature of any city. They jump out of every media source and influence our lives every day to an ever increasing degree. The oldest logo registered at the World Intellectual Property Organization (WIPO) that is still in use today is not one of the bright conspicuous names that light up New York, London and Tokyo. This logo, a winged hourglass, originated in a small town in the Swiss Jura region. It was May 27, 1889 when Ernest Francillon, owner of the watch brand Longines, submitted this symbol to the Swiss patent office as the trademark for his company. It was a groundbreaking move that was clearly in line with his vision for the company.

In 1854, Ernest Francillon took over the ownership of the watch manufacturing business founded by his uncle, Auguste Agassiz, in Saint-Imier, Switzerland. As was common in those days, Agassiz had purchased watch parts from various locations to be assembled by local piece workers in their homes. Francillon, his nephew and successor, was unhappy with the inconvenience of working with far-flung suppliers and artisans and so he approached this problem in a clever and, for those days, extremely modern way - by establishing a watch factory that concentrated the craftsmanship of his employees and also expanded the mechanical process in the horological industry. This new, industrialized way of manufacturing watches made it possible to streamline and increase production and to introduce consistent quality standards. The watches manufactured by Longines in Saint-Imier were subjected to quality controls, were individually numbered, and provided with the brand name "Longines" (followed by various addenda in those early years). Using a brand name itself was progressive. Now watches could feature a uniquely created brand name rather than the name of the company's founder or owner. In the case of Longines, this was the name of a geographical area ("les





The oldest registered logo still in use today is Longines's WINGED HOURGLASS.



Usual placement for the hourglass: engraved on the balance bridge

Longines" was the name given to the long narrow meadows where Francillon built his factory).

These well-known and popular Longines watches were often copied. In order to certify authenticity and also protect against copies and imitations Ernest Francillon had the winged hourglass engraved on the balance cock inside each watch. This concealed mark recalled the time-honored tradition of placing a gold-smith's personal "signature" on his work.

As early as 1867 the symbol became part of every genuine Longines. Seven years later, in 1874, Francillon

announced officially that the winged hourglass would guarantee the authenticity of a Longines watch, even referring to the symbol as his "Trade Mark." In a decade in which the leaders of the watch industry stood in stark competition with one another, Ernest Francillon promoted the uniqueness and quality of his products through the use of a graphic symbol. These are



ERNEST FRANCILLON was a marketing pioneer: He had already been using the hourglass symbol for almost 20 years when the world-famous Coca-Cola logo first appeared in 1886.

values that still define the essence of many logos today. The submission of the trademark to the Swiss patent office in 1889 provided legal protection for Francillon's hourglass from imitations. The hourglass stood within a double circle with the abbreviation EFCo (for Ernest Francillon & Compagnie). This led to fewer variations in the graphic depiction of the hourglass, and the symbol began to approach a recognizable, standardized form. In 1893, Francillon registered the logo as an internationally protected symbol.

In the history of marketing, Francillon stands out as a pioneer with a finely developed sense for future trends. His precociousness is shown by a comparison with the most famous logo in history. The cursive script of the Coca-Cola logo is one of the world's most wellCatalog entry from 1887 with stylized hourglass (left)

Pure art déco: poster from 1925 (below)



known trademarks. It first appeared in 1886, almost 20 years after Francillon first began using the winged hourglass for Longines. It became a registered trademark in 1893, which was four years after Francillon had already obtained exclusive rights to his own trademark.

Unlike Coca-Cola and other early world brands like Ford (whose logo appeared in 1903), Longines used its winged trademark with great discretion. Even well into the 1950s the hourglass remained hidden within the movement. Only during the revitalization of the postwar years did the hourglass and the registered Longines graphic font find their way onto the dials of Longines wristwatches. The stylized form is still there today with its horizontally spreading wings that recall the 1940s design. The combination of this striking hourglass design and the current version of the Longines graphic font originated in the 1970s.

Why did Francillon choose a winged hourglass as the trademark for his watches? Perhaps this was simply an obvious choice for a watch manufacturer: the hourglass is an archetypal instrument of timekeeping as well

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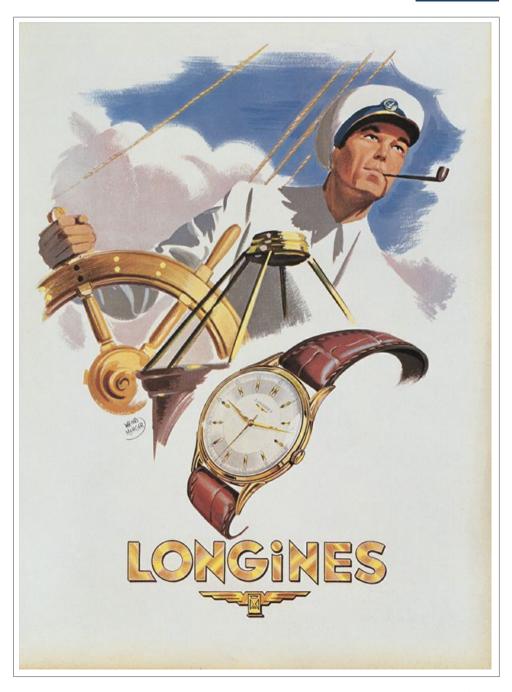
as a "memento mori" symbolizing the constant passage of time. Its deeper symbolism was ideal to give the company greater prestige. The wings provided a distinctly positive, heaven-directed sign that gave the hourglass another dimension. Interpretations vary. The wings may indicate the Christian beliefs of the company's devout Protestant owner, or perhaps they are merely pointing upwards in the direction of future achievements. We'll never know whether the winged hourglass had a clearly defined meaning from the beginning or if the symbol simply had a lucky start.

We may no longer be aware of any distinct message carried by a winged hourglass, but the Longines logo still has a clearly defined function. It meets the criteria that marketing experts say make for a successful logo: It is clear, unmistakable and unforgettable. And it has always been the visual identity of the Longines brand, thanks to the re-design of the winged hourglass in the 1940s as well as the history of Longines in the 20th century. The wings on the dial form a clear bridge to one of the most important chapters in Longines history. This company in the little Swiss town of Saint-Imier collaborated with the great aviation pioneer Charles Lindbergh to create a navigational pilots' watch for the early years of flight.

The winged design from the '40s corresponds neatly with this chapter in Longines history. It formed the basis for the logo in its current form, which differs greatly from the sweeping wavelike shapes from the 19th century version. It has become aeronautical. Now the wings spread dramatically away from the hourglass like a technically stylized eagle. Instead of indicating the rapid passage of time, the hourglass now symbolizes dynamic air power, and is a perfect reflection of the elegant 1930s and '40s style featured in so many Longines collections.

DISCREET: The hourglass logo remained hidden inside the movement well into the 1950s.

> The winged hourglass with a typical 1950s look: advertisement from 1950





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The 1950s celebrated high style and joie de vivre.



hat time does your watch tell? Simply the right time, or maybe a really good time? Vacation time, or maybe just quitting time? Summertime? Time for a workout, or for a new pair of shoes? And most importantly - how does it do that?

At Longines, creative solutions to these questions have always played an essential role in the company's long heritage. Accuracy in displaying the time forms the essential foundation, but Longines's ladies' watch designs also bring together an entire cosmos of images, dreams and ideas.

One of the most successful watch collections to come out of Saint-Imier rightfully bears the name Longines DolceVita. Created in 1997, the elegantly proportioned rectangular-shaped watch is inspired by the upbeat flair of the 1950s. The years immediately after World War II celebrated style, femininity and joie de vivre with enthusiasm and spirit. Film stars of that time, like Audrey Hepburn and Grace Kelly, still stand as the ideal image of elegance; and Fellini's well-known Italian film classic "La Dolce Vita", released in 1960, embodied the vibrant spirit of the decade. Ads for the watch that bears the same name featured an iconic image of Audrey Hepburn from "Breakfast at Tiffany's," released in 1961.

A VARIETY OF BEAUTIFUL OPTIONS

A bit of the vibrancy of that time is always present when the hands advance around one of the Longines Dolce Vita collection. These watches show the time on simple diamond-enhanced dials, and with Roman numerals, gold markers or dancing-diamond Arabic numbers. Steel and gold bracelets and fine leather straps embrace the wrists of women from America, Asia and Europe – and the watch always recalls those important legends of the 1950s. The form is classically feminine and ladylike in every situation and dedicated to elegance in every way just like the divas of the mid-20th century.

The Longines DolceVita is offered in four sizes with a virtually limitless variety of beautiful options, but the collection has never followed wild or outrageous fashion trends. Those trends would not have harmonized with





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the Longines DolceVita character, inspired as it is by its 1930s and '50s design. The Longines DolceVita won't measure racetrack times or stressful hours. It remains within the realm of sunny, exhilarating times while still providing accuracy and reliability. Its rectangular shape is perfect for the decisive woman who knows exactly what she wants.

In 1992 Longines introduced a ladies' watch that has become a true icon. La Grande Classique de Longines is the name of the ultraslim watch with a perfectly round case and Roman numerals, line indexes or diamonds on the simple dial. Its unique lug design is a characteristic feature. Only a tiny segment of the case is connected to the much wider strap and underscores the finesse of its shape.

The narrow hands on La Grande Classique de Longines measure the hours and minutes of a busy day in a quiet and reserved way. They turn within a watch that easily adapts to the style, age and personal situation of its different wearers – unassuming and unmistakable, as it should be for a watch that has the attribute "classic" in its name. And La Grande Classique de Longines gives anyone who quickly wants to know the time a taste of its elegance and light.

La Grande Classique de Longines has many different faces. The combination of a stainless-steel case and bracelet and a white dial gives the impression of purity while the combination of Roman numerals, a diamond-encrusted bezel and a fine black leather strap lends the watch a feeling of reserved luxury. And if the combination includes a black dial and diamond markers, La Grande Classique de Longines suddenly becomes a watch with a mysterious, nighttime flair. The dimensions of the ladies' models range from delicate versions (with a diameter of 24 mm) to medium size (34 mm). Quartz movements generally power these watches with a minimum case height of less than 4.5 mm. For those who pre-





Longines was always a specialist for the kind of flair that makes wearing a watch a SENSUAL experience. fer a mechanical movement, La Grande Classique de Longines is also available with an automatic movement – but naturally it will be slightly thicker.

GRACING THE HOUR WITH THEIR FLAIR

La Grande Classique de Longines is matchless as a discreet piece of jewelry with a reliable display of the different times of the day or night, in any phase of life. For women who prefer a romantic touch, Longines introduced the Longines PrimaLuna in steel and pink gold in 2009. Even its dial has a classic, round shape. The special emphasis of this design is its roundness, and its name clearly takes the moon as its inspiration. The Longines PrimaLuna has a double bezel ring that gives the watch its unmistakable form. Many of the models have an external ring of steel and inner ring of pink gold, giving the watch a harmoniously rounded look that is the crowning touch for the warm, soft aura exuded by the Longines PrimaLuna. The watch is powered either by a quartz or an automatic movement. Dials range from nostalgic to extravagant and still remain thoroughly feminine and suitable for everyday wear, just like the entire watch. One variation, however, is explicitly dedicated to the night: 314 diamonds sparkle on the dial of the Longines PrimaLuna "Thousand and One Nights," and its case is decorated with 44 more of these precious stones.

JEWELRY AND TIMEPIECE IN ONE

Longines was always a specialist for the kind of flair that makes wearing a watch a sensual experience. Even before the wristwatch triumphed over the pocketwatch, Longines in Saint-Imier made looking at a watch that much sweeter for women – with the addition of precious decorations



Left: Delicate watches were preferred in the 1950s.

Below: "Cleopatra", futuristic sculptural watch from 1975

Tiny watches graced the wrists of the women of the 1950s who CELEBRATED their femininity.

in line with the style of the moment. The mid-19th century saw a feminine pocketwatch with a flower motif encircled with pearls on its caseback. The watch originated from Agassiz & Compagnie, which later became Longines. Soon, opulently decorated pendant watches combining jewelry and timepieces became a Longines specialty. Whether in the style of the Belle Époque or Art Deco, the elegant display of time made Longines a leading manufacturer of jewelry watches.

Entwining vines and garlands on watch dials showed the right time to women of the nature-inspired Art Nouveau era. Later, rectangular cases accompanied women along the path towards emancipation. Tiny watches graced the wrists of petticoat-wearing women of the 1950s who celebrated their femininity. Playful, avant garde shapes and futuristic diamond creations showed the time during the more experimental years of the 1960s and '70s. These watches displayed the time, and symbolized the spirit of the moment and the woman who selected this watch over all others. Longines watches were





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Left: The Ladies Diamond Conquest combines steel, ceramic and diamonds.

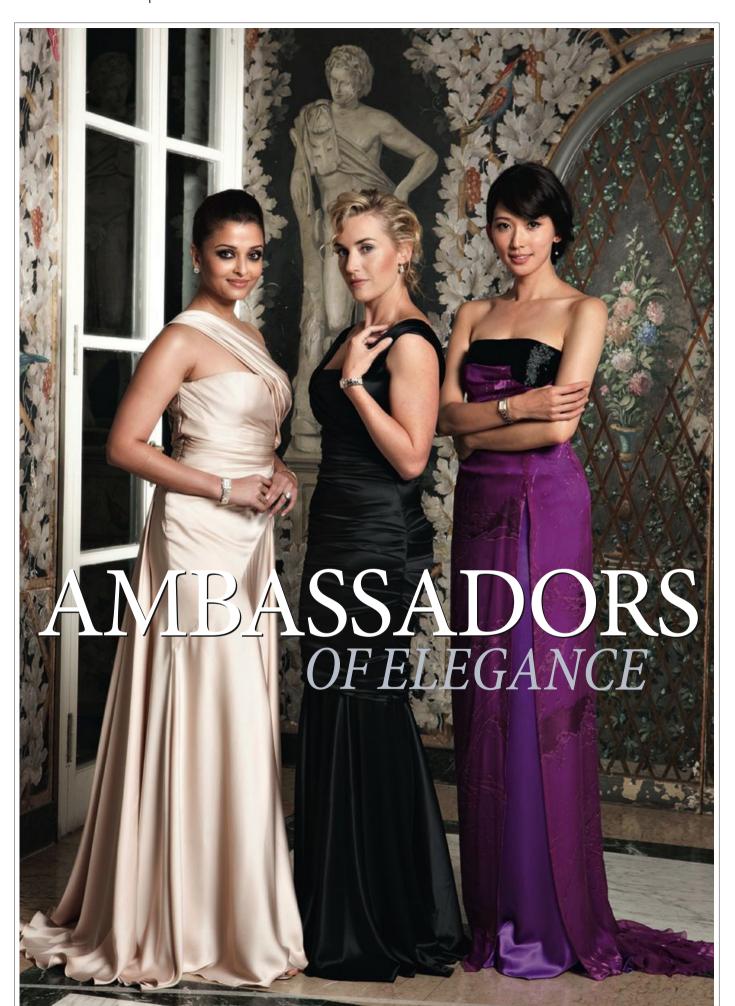
Right: The Ladies Diamond Conquest is both powerful and elegant.

creations that made a wristwatch a very personal affair. This tradition continues in the current collections of ladies' watches from Longines, and in the company's devotion to elegance.

This special devotion becomes immediately evident when Longines designs a sturdy ladies' sports watch. The Ladies Diamond Conquest is an all-around watch that is as sporty as it is elegant. The proportions of the stainlesssteel watch with its quartz movement are self-assured and its design elements are both feminine and dynamic. The combination of 120 diamonds on a wide, subdivided bezel, along with a mother-of-pearl dial and diamond markers, provide a balanced combination of a sports watch and fine jewelry. Other variations are available in black or white ceramic - encircled by a delicate diamond ring on the bezel that then continues down the metal bracelet like a racing stripe. The watch is refreshing, stimulating – an inspiration to take on new adventures with an uplifting effect when the routine of daily life returns. The art of the Ladies Diamond Conquest is the fine balancing act between the sporty, dynamic design

elements and feminine finesse – the emotional effect of a beautifully exquisite, sturdy watch.

On the occasion of its 180-year anniversary, the Longines brand has chosen to celebrate at the location where it grew up and still makes its home: Saint-Imier in Switzerland's Jura region. The Longines Saint-Imier Collection consists exclusively of watches with mechanical movements. Both the inside and the outside of the new collection reflect the horological traditions of the company. A model from 1945 is the most important source of inspiration for its design. For ladies, the new collection offers watches that link clear, functional design with a hint of retro. In steel, or steel with rose gold, with diamonds or without, the Saint-Imier for ladies tells of the tradition of a strong brand and of the way daily interaction with an object of beauty can enrich your life.



Longines's ambassadors come from many different countries and possess a number of very different talents. But one thing unites these performers and athletes: Each has a distinct and unmistakable style. Their variety and versatility are the best representatives of the many **FACETS OF ELEGANCE**.

BY JULIA KNAUT



Kate Winslet is known as one of the most versatile actors today. Her extraordinary range allows her to embody very different characters, whether in front of the camera or on stage. At the age of 11 this talented British actor had already begun appearing in a number of television programs and in 1994, she made her movie debut in "Heavenly Creatures." Three years later, she starred in the blockbuster movie "Titanic." Despite her enormous success, she continues to accept roles in smaller film projects. She counts several prestigious movie awards among her achievements. She is the youngest actress ever to have received six Oscar nominations. In 2009, she won the Best Actress Oscar for her performance in "The Reader." She earned her third Golden Globe award in 2012 for her performance in the TV mini-series "Mildred Pierce." The same year she received a César d'honneur congratulating her on her entire career. In 2012, she has as well been honored by Queen Elizabeth II and named "Commander of the Order of the British Empire." In addition to being such a talented actress, Kate Winslet is the mother of two. She also spends her time and energy on the foundation she has set up: the Golden Hat Foundation. Its aim is to eliminate barriers for people with autism around the world and to help them by giving them a suitable education.



ISHWARYA RAI-BACHCHAN

Named Miss World in 1994, Aishwarya Rai has had an extremely successful career as a model and actress. She has graced the covers of the most important lifestyle magazines and appeared in numerous Bollywood films. She has also been acting in English films since 2004. In 2009, she played in the film "The Pink Panther 2." Early in her career she became involved with charitable organizations in support of orphaned children and disadvantaged people in India. She has been a Longines Ambassador of Elegance since 1999. In 2007, she married the celebrated actor Abhishek Bachchan and gave birth to a daughter in 2011.



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LING LIN

Her extraordinary charm and exquisite style make her an ideal Ambassador of Elegance. Chi Ling Lin was born and raised in Taiwan. One of the most famous models in Asia, she has also proven her many talents on television and in movies. In 2004, she became involved in various foundations, including some in support of AIDS victims and orphans. In 2008, Chi Ling Lin made her film debut in "Red Cliff" directed by John Woo. In 2010, she played in her third Chinese comedy film, "Welcome to Shama Town." Chi Ling Lin also sponsors a calendar each year whose profits are donated to charitable organizations. In 2011, Chi Ling Lin established the Chi-Ling's Charity Foundation in order to help disadvantaged children.



NGEBORGA DAPKUNAITE

Born in 1969 in Lithuania, she was an early fan of film and theater. Her fascination led her to study drama. After completing her studies, Ingeborga Dapkunaite appeared in her first movie role in the 1992 film "The Cynics." Additional roles followed in award-winning films and on stage, bringing her international attention. She remains active in cinema and has also sat on various film juries including the 2003 International Film Festival in Cannes. She has performed in "Hannibal Rising" and "Seven Years in Tibet," among other films. She has also been working on stage with John Malkovich in "The Giacomo Variations" since 2011.

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ARON KWOK FU SHING



Aaron Kwok Fu Shing is known as an all-around entertainer. He began his career in 1984 as a dancer and today he is one of Asia's most admired singers, dancers and actors. His appearances have won him over 100 music awards and multiple honors at the Taiwanese Golden Horse Film Festival. Kwok uses his extraordinary talents for the benefit of others and has founded the Aaron Kwok Charity Foundation in 2003. He is also UNICEF Ambassador for the Pacific Region. He participates in various car races in order to raise money from sponsorship fees to donate to UNICEF. A lover of luxury objects and watches in particular, Aaron Kwok joined the Longines family of ambassadors in 2005.

IMON BAKER

A Golden Globe and Emmy nominated actor, Australian-born Simon Baker has an impressive background that spans both film and television, capturing the attention of audiences worldwide. He can currently be seen playing 'Patrick Jane' in the popular series "The Mentalist." His performance has earned him both Emmy and Golden Globe nominations for Best Actor in a Drama Series. "The Mentalist" is one of the networks' highest rated shows, breaking viewing records right out of the gate. In 2012, Baker was seen in "Margin Call," a thriller which revolves around the key players at an investment banking firm during a 24-hour period in the early stages of the 2008 financial crisis. In 2010, Baker was seen in director Michael Winterbottom's "The Killer Inside Me" opposite Casey Affleck. Prior to this, he starred in the 20th Century Fox smash hit "The Devil Wears Prada" opposite Meryl Streep and Anne Hathaway; he also starred in "Something New," a romantic comedy. Baker first gained attention in Curtis Hanson's Academy Award winning film "L.A. Confidential" opposite Kevin Spacey and Danny DeVito. He was officially introduced as a Longines Ambassador of Elegance at the Prix de Diane Longines in Chantilly (France) in June 2012.







Germany's most famous tennis player can look back on a 17-year career and 902 victories. Even as a child she won tennis competitions, which she continued throughout her youth and reached the high point of her athletic career in 1988. That year Stefanie Graf won all four Grand Slam tournaments and Olympic gold. She was selected as Athlete of the Year for the first time in 1999 - the year she officially retired. Since that time she has devoted herself to her foundation Children for Tomorrow, which helps children who have been traumatized by war. In 2012, the foundation received the Longines Prize for Elegance.

This exceptional American athlete has won the most important tennis tournaments in the world. In 1999, Agassi won the French Open, making him the first male player to win all four Grand Slam titles and Olympic gold in his career. He finished that year as world number one for the first time. Agassi has 60 career singles titles including eight Grand Slam titles. In 2005, he finished in the top 10 for the 16th time in his 20-year career. He also received the Arthur Ashe Humanitarian Award for his social involvement. In 1994, he founded the Andre Agassi Foundation for Education which promotes recreational and educational opportunities for atrisk children and youth in Agassi's hometown of Las Vegas. In 2001, he also opened the Andre Agassi College Preparatory Academy. He has devoted himself full time to these projects since officially leaving professional tennis in 2006. In 2011, he received the highest honor in the sport of tennis:

induction into the International Tennis Hall of Fame.

AGASSI

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ANDRE AGASSI FOUNDATION FOR EDUCATION

At the high point of his career, Andre Agassi founded the Andre Agassi Foundation for Education in 1994. Through this foundation Agassi helps improve educational opportunities for children and youth in America. In 2001, he created the Andre Agassi College Preparatory Academy in Las Vegas that offers an excellent education to students from kindergarten

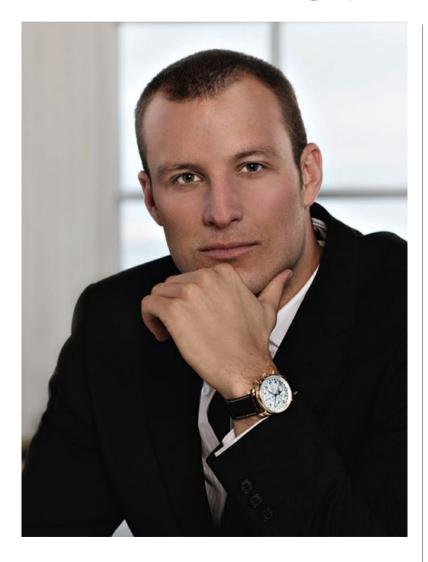
to 12th grade. The foundation also promotes financial investment in public schools and supports a stronger sense of responsibility from administrators, teachers and parents. To this end, every year Agassi hosts the Longines benefit concert "Grand Slam For Children." To date it has collected donations of more than \$90 million.

CHILDREN FOR TOMORROW

In 1998, Stefanie Graf established the non-profit organization Children for Tomorrow in collaboration with the Hamburg-Eppendorf University Hospital. Graf's foundation initiates and supports projects worldwide that assist victims of war, persecution and violence, primarily children. Its main focus has been the healing of emotional wounds. Projects are currently underway in South Africa, Eritrea, Uganda, Kosovo, and Hamburg, Germany. At the Hamburg clinic, Children for Tomorrow provides psychological assistance and special therapies for refugee children. The foundation has also created an educational center there for therapeutic staff.

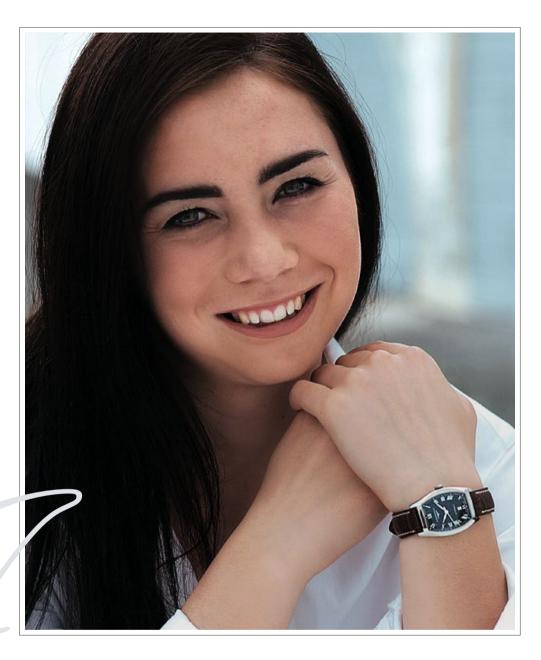


KSEL LUND SVINDAL



Few skiers have achieved as many top rankings as Aksel Lund Svindal. This Norwegian athlete began skiing at age three and has taken part in important competitions since the age of 16. His international breakthrough came in 2002 at the Europacup in Italy. Despite serious injuries in 2007, Svindal returned to the slopes the following season with his mix of technique and elegance. Today, this exceptional athlete is an Olympic gold medal winner and is counted among the most successful athletes of his time with four World Championship titles and seven season titles in four different disciplines.

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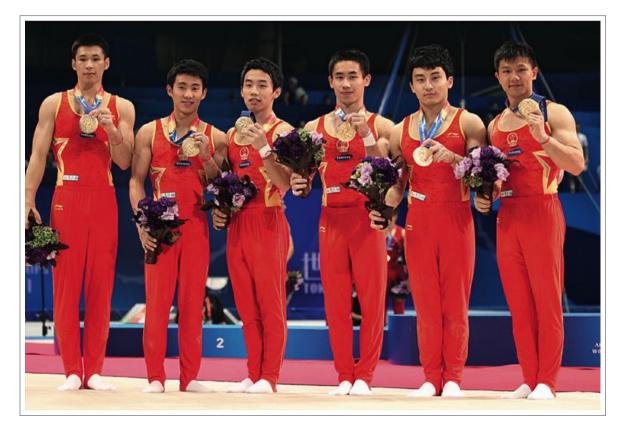
ANE *RICHARD*

Horses have always been the epitome of elegance and are the passion of professional rider Jane Richard. The Swiss rider won her first professional tournament in Kerzers, Switzerland, in 1998. Since that time she has always remained among the top 10 Swiss riders in her class.

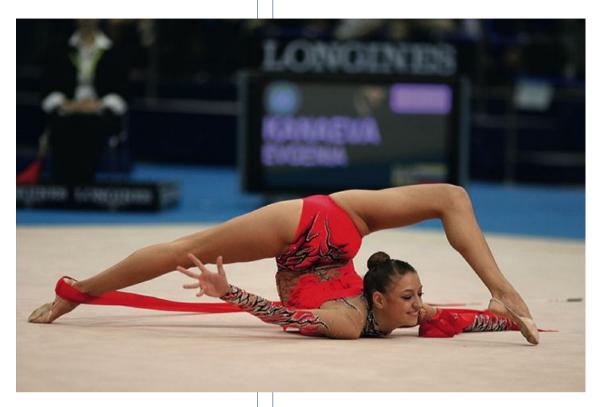
Richard's best season so far was in 2006 with three first-place wins and four times on the winners' podium. One year later she achieved her best results to date, taking third place at the Dublin Horse Show on Jalla De Gaverie. She continues to participate in top-level riding events.

CHINESE MEN'S GYMNASTICS TEAM

At every major gymnastics competition the Chinese men's gymnastics team is always one of the medal favorites. Exceptional talents such as Li Ning, Yang Wei and others have always placed them at the top of the world in this category. Team wins were achieved at the World Championships in 2003, 2006, 2007, 2010 and 2011 and they were heralded as the "Super Team" at the 2008 Olympic Games in Beijing. Seven first-place wins there gave the team the unchallenged top position in gymnastics. In 2012, in London, the Chinese men's gymnastics team successfully defended their Olympic title from the Beijing 2008 Games.



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VGENIA

Absolute self-control and absolute elegance of movement - this fully characterizes the rhythmic gymnast Evgenia Kanaeva. She was born in 1990 in Omsk, Russia, and trained in the sport since early childhood. One of Kanaeva's greatest inspirations is the famous Usbek gymnast Yana Batyrchina, who happens to be the first athlete to be awarded the Longines Prize for Elegance. Today, Evgenia Kanaeva's numerous titles have made her a model athlete in her own right. She is currently one of the most titled gymnasts in the world after recording three World Championship and three European Championship victories. She successfully defended her Olympic title from Beijing at the London 2012 Games. Her greatest successes so far were at the 2009 and 2011 World Championships of rhythmic gymnastics where she won six gold medals - an unbroken world record in the sport.

HE LONGINES RISING TENNIS STARS

As a complement to its role as the official partner and timekeeper for the French Open, Longines is also involved in the future of tennis. The company established its Longines Rising Tennis Stars foundation to promote and support the careers of young talented tennis players from around the world. Seven young players are currently part of this program.

TIAGO FERNANDES





This nineteen-year-old is known as the up-and-coming tennis talent in Brazil. Tiago Fernandes was the first Brazilian player to be named the world's number one junior player by the International Tennis Federation.

RYAN HARRISON

GRIGOR DIMITROV

Born in Haskovo, Bulgaria, Grigor Dimitrov began playing tennis when he was only five years old. Some of his greatest successes include the Junior Champion title at Wimbledon and the U.S. Open 2008.

As one of the youngest players ever, Ryan Harrison won his first ATP Tour Match at the age of only 15. In 2011, this American player won his first singles title at the Challenger level.



TSUNG-HUA YANG



Tsung-Hua Yang was born in Taiwan in 1991. Not only did he win the world's most renowned tennis tournaments in his age class, he also received the title of Taiwan's Athlete of the Year.



This talented German player began her professional tennis career in 2004. Sabine Lisicki played her best season so far in the year 2011 and won several tournaments including two WTA tournaments, and was also awarded the Comeback Player of the Year prize.



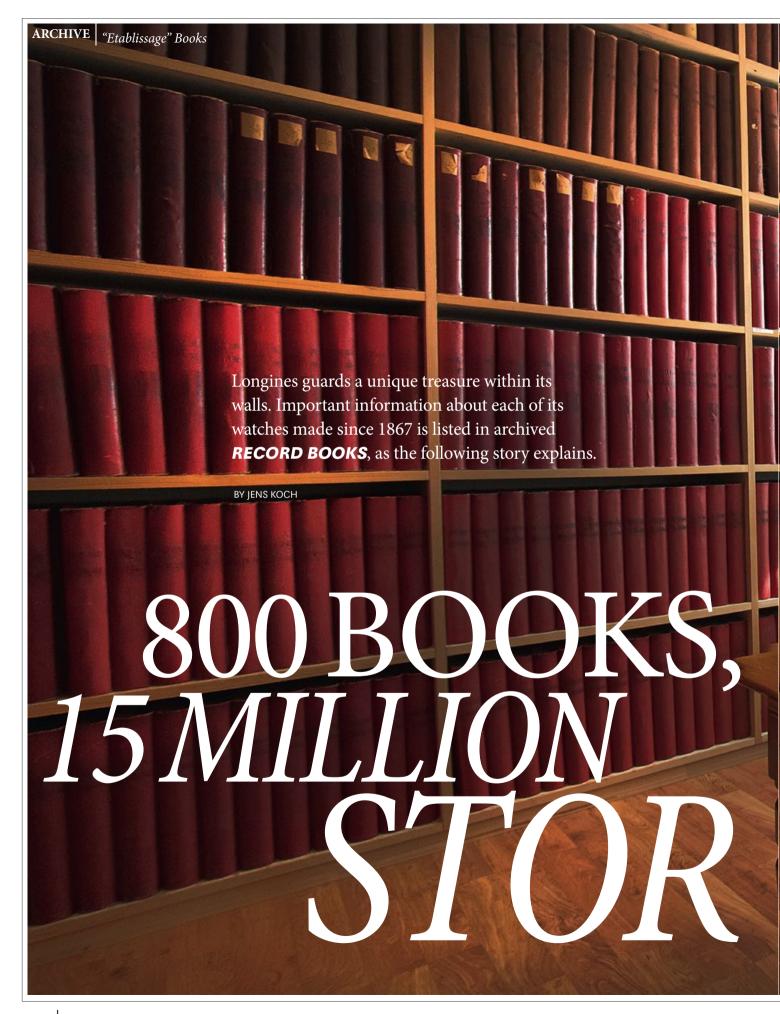
ROBERTO CARBALLES BAENA

In 2011, the Spaniard Roberto Carballes Baena was listed 11th on the ITF Junior world rankings when he was 18 years old. He won two tournaments that same year.

SAI-SAI ZHENG

In 2010, Sai-Sai Zheng was only 16 when she represented China at the Youth Olympic Games. She garnered attention after winning the gold medal in doubles and silver in singles.



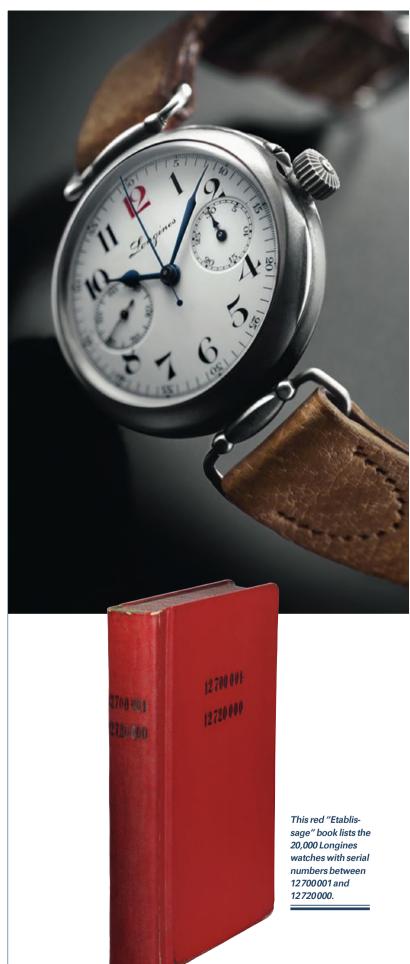




Single-pusher chronograph: Archival records provide information on the location and date of purchase.



Introduced in 1913: The Longines Cal. 13.33Z is one of the first wristwatch chronograph movements.



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have fond memories of the years during my childhood spent with my grandfather in the garden. At some point during the day, he would look at his watch and say, "Just 10 more minutes until we have to go inside." Then he'd press the crown to set its timer. Sometimes we were allowed to play with the watch and start and stop the movement of the hands ourselves. My grandfather lived to a ripe old age - and when he died, the watch went first to my uncle, and then it came to me.

That's when I began looking for more information about this special watch. It's a silver single-pusher chronograph from Longines. Our local dealer told me about the company's archives housed at their headquarters in Saint-Imier, Switzerland, where I might find more details about my watch. After a phone call, my watch and I were invited to stop by.

Two weeks later I stepped off the train in the small town in the Jura region and walked down the long steps leading to the large Longines building. Even though it was only October, newly fallen snow lay on the surrounding mountains. After being greeted at the front desk, I entered the archives with the curator of the museum. Shelves covered the walls from floor to ceiling, completely filled with large red record books. I was deeply impressed to learn that every Longines watch made between 1867 and 1969 was listed in these "Etablissage" books.

By using the serial number of my watch, we quickly found the correct volume and entry. These records showed that the watch had a silver case and was equipped with the 13.33Z caliber, one of the first chronograph movements built for wristwatches, and that it had already been produced in 1913. My watch - as we also read in the book - was exported on May 9, 1919, to the

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The entry of the single-pusher chronograph in the "Etablissage" book

Weil company in Chile, the Longines importer for that country. My grandfather must have purchased the watch during his stay in South America as a mining engineer, when he had worked in Chile for several months on a copper mine project. I was surprised to learn that this Swiss brand had been sold abroad at such an early date.

Now I knew the whole story of the watch and knew when and where it was manufactured and sold. It was a moving experience to realize that after more than 90 years, and traveling back and forth across the Atlantic, the watch was right back where it had been made.

Another remark in the book noted who had adjusted the watch. Like my grandfather this watchmaker had certainly already passed away, but the memories of my grandfather and my childhood have not died. His watch which I intend to wear always – continues to remind me of those precious times.



Longines's rich history provides a multitude of opportunities for watch fans to increase the value of their collections with the addition of some **FASCINATING TIMEPIECES**. The models featured here are generally obtainable in the four-digit price range at any noteworthy auction house.

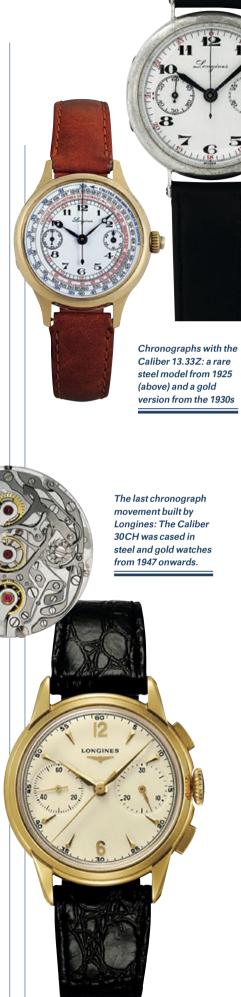


nyone who is interested in collecting Longines watches should take these guidelines to heart. They address the most desirable chronographs, navigational watches and elegant three-hand watches of this important brand and will help ensure that fans of historical timepieces do not overlook important pieces – and this in turn will help give their collections a representative overview of wristwatch production at Longines.

CHRONOGRAPHS

Any fine Longines collection begins with a model containing the Caliber 13.33Z. This single-pusher chronograph was built between 1913 and 1936 and is usually found with a 14- or 18-karat gold or silver case with a hinged cover. Steel versions are much rarer. Gold watches from the 1920s and 1930s (that is, not the earliest models) currently go for around 6000 euros at auction, while silver watches can be had for around 4000 euros. At the time of their production the case and movement numbers were identical and care should be taken at the time of purchase for verification. (Unfortunately, matching numbers were no longer used at later dates.) Special attention should also be paid to the hinge on the back cover. Any damage will need to be repaired by a goldsmith and this can become quite expensive. Another important feature is an original, unrestored dial with correct fonts. Enamel dials should never have breaks, hairline cracks, or chips along the edge.

The next acquisition for any chronograph fan should be a watch with the Caliber 13ZN. This movement has a fly-back function, column-wheel, screw balance and hairspring with overcoil, and was built from 1936 to 1947. It is one of the most famous chronograph calibers in watch history. Even passionate collectors will find it difficult to have just one. There are still some gorgeous steel models with two- and three-tone dials at prices between 5000 and 8000 euros, and also with enamel dials. A gold version was also made in a waterproof case with a threaded caseback that can cost up to 20,000 euros. More difficult to find are the models beginning in 1942 with a central minute counter. A steel watch of this type in new, pristine condition will cost anywhere from 30,000 to 40,000 euros at auction.





Valuable piece of watch history: steel chronograph from the 1940s with the Caliber 13ZN

Uncommon find: The Lindbergh Hour-Angle watch in a silver case is rare.



The successor Caliber 30CH also has a fly-back function. The movement was used starting in 1947 and, like the 13ZN, has a screw balance, hairspring with overcoil and column-wheel. It is so desirable among collectors because it was the last chronograph movement from Longines for quite a long time. Watches of this type currently cost around 7000 euros. Gold watches begin at 3500 euros and steel at 5000 euros.

NAVIGATION WATCHES

Another milestone that occasionally appears at auctions is the silver Lindbergh Hour-Angle watch from the 1930s with an enamel dial and oversized case (47.5 mm). Depending on the condition of the watch it may fetch anywhere from 15,000 to 30,000 euros. The smaller model with a diameter of 33 or 37 mm can be had for 3000 to 5000 euros.

Less expensive than the Lindbergh watch is the Weems pilot watch from the 1920s and '30s. One version is available with a rotating bezel and second crown in different sizes up to 34 mm. More popular today however are the 47.5 mm watches which have a rotating dial center that can be turned with the single crown. The watches

contain the Caliber 12.L or 12.68. The smaller models currently cost about 3500 euros while the larger versions go for about 15,000 euros.

ELEGANT THREE-HAND WATCHES

In addition to the chronographs and special instruments for pilots, Longines fans always find the elegant models with a central or offset second hand of particular interest. Some of the more sought-after watches of this type are the "Flagship" models that were built with manual-winding and self-winding movements.

The Calibers 30L to 30LS, which were initially created in 1957, were wound by hand. Steel models with threaded casebacks generally go for around 3000 euros at auction. Gold versions (which were also produced with small diamonds at 3, 6 and 9 o'clock) can be purchased for around 2000 euros.

Among the flagship automatic versions, the Calibers 340, 350 and 380 with a ring gear rotor rank highest. This family of movements was introduced in 1960 and includes watches in steel and gold, and very rarely in platinum. Bargain hunters may even be able to find the luxurious gold models with a gold dial and leather strap (or even a gold bracelet) for 2000–3000 euros and increase the value of their collections at a reasonable price.

Although these and other interesting Longines watches are accessible to a relatively broad circle of collectors, a few very special pieces still occasionally appear at auctions – but their prices usually exceed the price range of a normal collector. In fact,





Starting in 2013, collectors will be able to find the product histories and auction prices of every watch ever made by Longines in a COMPREHENSIVE DATABASE.

this occurred in October 2008, when the Antiquorum auction house in New York sold a Longines watch from the private collection of Albert Einstein. Reaching a final price of \$ 596,000, the rectangular gold wristwatch (with its engraved caseback showing that it was awarded to Einstein on February 16, 1931 in Los Angeles) entered the annals of history as by far the most expensive Longines of all time.

Einstein's watch and the price it achieved at auction will be recorded and stored in a comprehensive database, along with every other watch that Longines ever built. The brand intends to create a complete store of information before the end of 2013. This will give Longines fans the opportunity to trace the history of any watch from the date of its production and to determine prior auction results. Every timepiece is currently being registered along with its reference, serial and movement numbers in order to make them clearly identifiable. An ambitious project for a brand that has already produced more than 38 million watches!

Research assistance regarding prices was kindly provided by Martin Pech, and the auction houses Dr. Crott, Christie's (Geneva) and Sotheby's (Geneva).





CONTRIBUTORS

Gisbert L. Brunner

is a renowned watch expert based in Germany, the author of numerous books about watches, and a contributor to *WatchTime*.

Rüdiger Bucher

is the editor-in-chief of *Chronos*, Germany's leading watch magazine, and *WatchTime's* sister publication.

Maria-Bettina Eich

is a freelance writer in Germany specializing in design and watches.

Julia Knaut

is an editor of Chronos.

Jens Koch

is an editor of Chronos.

Alexander Krupp

is an editor of Chronos.

Alexander Linz

is a veteran watch journalist based in Austria and a contributor to *WatchTime*.

Christian Pfeiffer-Belli

is editor-in-chief of *Klassik Uhren* magazine in Germany and the author and editor of numerous books about watches.

Joe Thompson

is the editor-in-chief of WatchTime.



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Ebner Publishing International, Inc. 274 Madison Avenue, Suite 804, New York, NY 10016 Tel 646-742-0740, Fax 646-742-0748 E-mail: info@watchtime.com www.watchtime.com

Project Editor: Rüdiger Bucher

Managing Editor: Maria-Bettina Eich

Contributors: Gisbert L. Brunner, Maria-Bettina Eich, Julia Knaut, Jens Koch, Alexander Krupp, Alexander Linz, Christian Pfeiffer-Belli, Joe Thompson

Assistant to the Project Editor: Bettina Rost

Translations: Joanne Weinzierl

Graphic Design: Publisher's Factory, Munich, Germany

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